

{7,"<B>","</B>","<I>","</I>","<TABLE>"}
procedure <b>pcwrap</b> HLRT (page $P$ ) scan to the line 7 in $P$ while the next occurrence of $li$ in $P$ occurs before the next occurrence of $t$ scan in $P$ to next occurrence of $l_i$ ; save position as start of item attribute scan in $P$ to next occurrence of $r_i$ ; save position as end of item attribute scan in $P$ to next occurrence of $l_p$ ; save position as start of price attribute scan in $P$ to next occurrence of $r_p$ ; save position as end of price attribute return extracted . . . . ., (item,price),. . . . .} pairs

**FIGURE 1**  
**(PRIOR ART)**

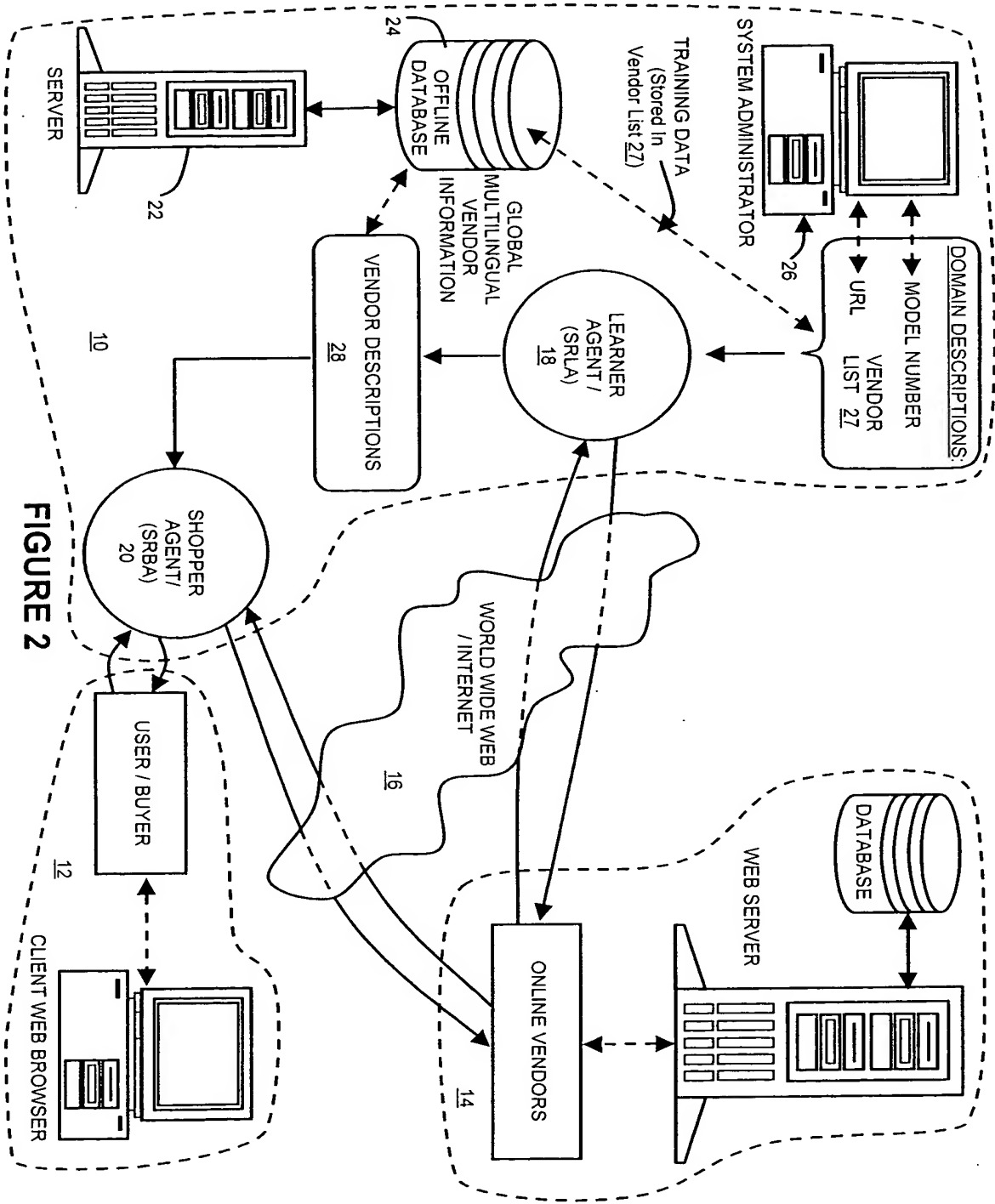
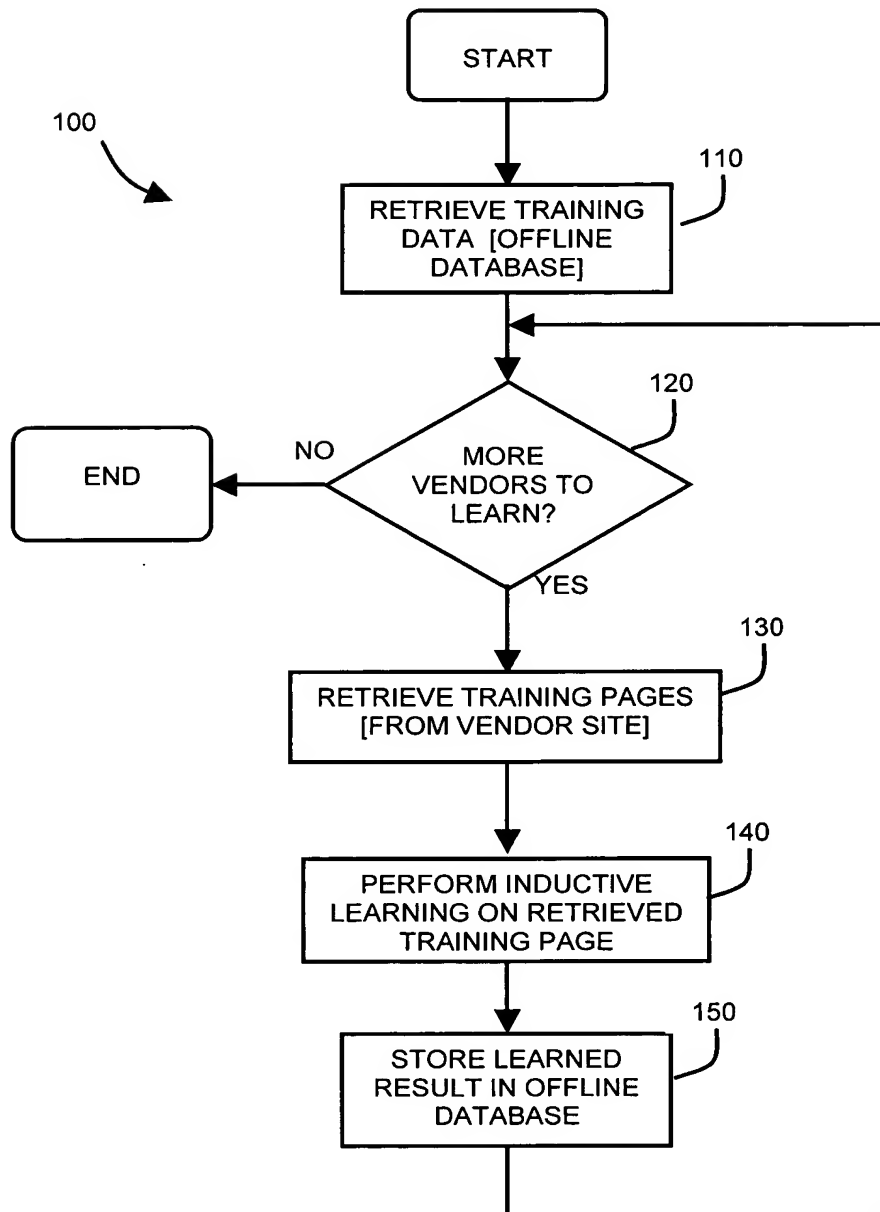


FIGURE 2



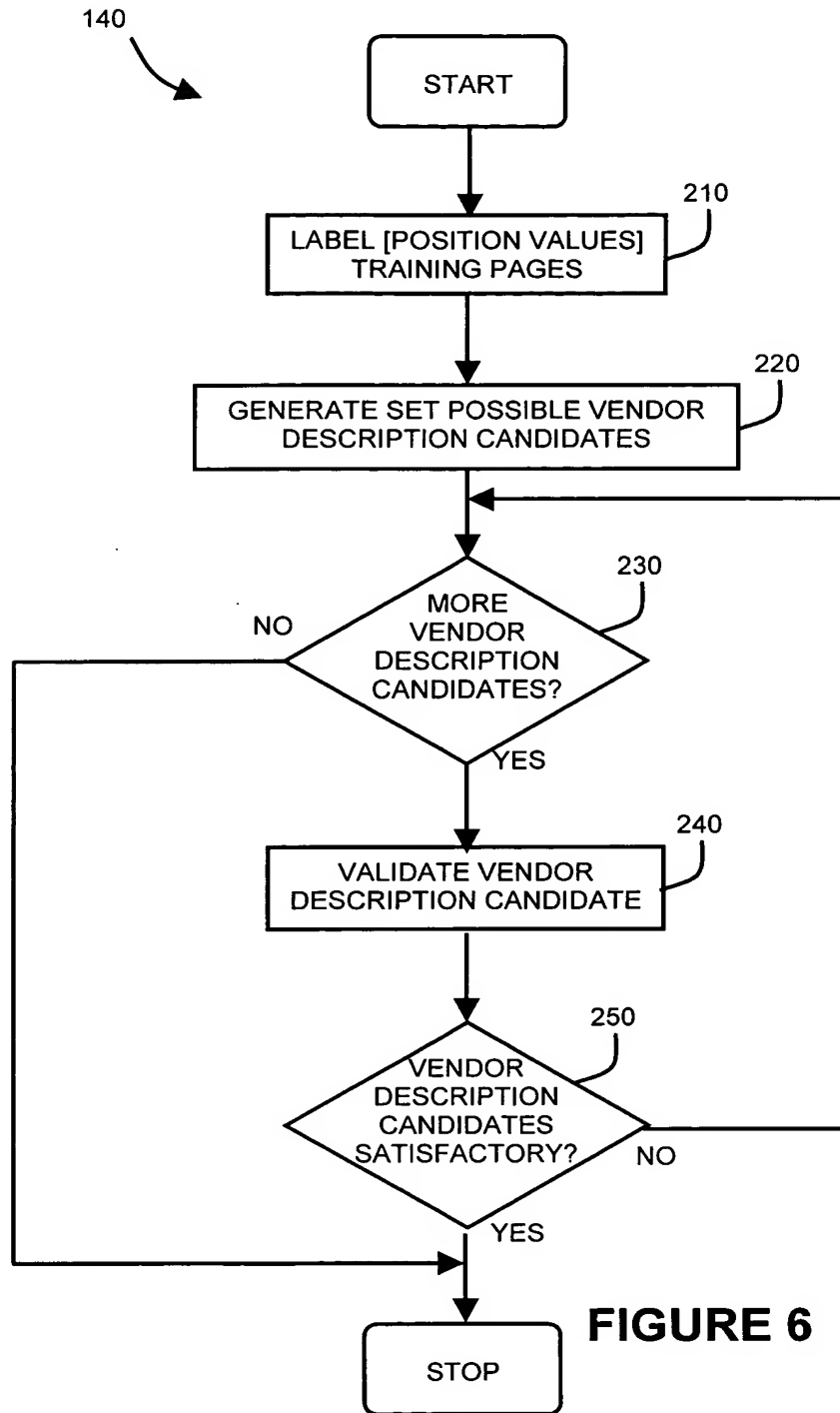
**FIGURE 3**

Element Name	Element Description
Vendor Name	Name of the online shop
Vendor URL	The URL of the online shop
Form URL	The URL to submit search data
Learning Domain	The domain used to learn the vendor description
Head	The end of header position of vendor's product pages. This element is learnt to reduce the product page searching space and thus shorten the product information extraction time
Tail	The start of footer position of vendor's product pages. Same as Head element, with this element the product information extraction time for Shopper Agent is shortened.
Left Delimiter of Item	The Shopper Agent uses these two delimiters to identify a product
Right Delimiter of Item	
Left Delimiter of Price	The Shopper Agent uses these two delimiters to locate a product's price information
Right Delimiter of Price	

**FIGURE 4**

EXAMPLE	
Element Name	Element Description
Vendor Name	800.com
Vendor URL	http://www.800.com
Form URL	http://www.800.com/search/srchrsults.asp?qs=1&slteentry=All&entry=
Learning Domain	Md
Head	1230
Tail	</BODY>
Left Delimiter of Item	/td width="12">
Right Delimiter of Item	</fon
Left Delimiter of Price	Your Price: \$
Right Delimiter of Price	</b>

**FIGURE 5**



**FIGURE 6**

MD PRICE		<HTML>
		<TITLE><B>A Simple Product Catalogs</B></TITLE>
		<BODY>
Model Number	PRICE (US\$)	<H2> MD Price </H2>
HM381MD	399.95	<TABLE BORDER=1>
MD2070	599.95	<TR BGCOLOR=ORANGE><TH> Model Number </TH>
MD203	249.95	<TH> PRICE(US\$)</TH></TR>
MDR3	399.95	<TR><TD><B> HM381MD</B></TD><TD><I>399.95</I></TD></TR>
		<TR><TD><B> MD2070</B></TD><TD><I>599.95</I></TD></TR>
		<TR><TD><B> MD203</B></TD><TD><I>249.95</I></TD></TR>
		<TR><TD><B> MDR3</B></TD><TD><I>399.95</I></TD></TR>
		</TABLE>
		<P>
		<HR WIDTH=200 ALIGN=LEFT>
		<P>
		<B> End Of The Product Catalog </B>
		</BODY>
		</HTML>

FIGURE 7

Product Entry	Labels
{ HM381MD, 399.95}	{<<174, 180>, <197, 202>>}
{ MD2070, 599.95}	{<<229, 234>, <251, 256>>}
{ MD203, 249.95}	{<<283, 287>, <304, 309>>}
{ MDR3, 399.95}	{<<336, 339>, <356, 361>>}

FIGURE 8

Product Entry	Labels
{ PRODUCT, PRICE}	{<PRODUCT LEFT DELIMITER, PRODUCT RIGHT DELIMITER>, <PRICE LEFT DELIMITER, PRICE RIGHT DELIMITER>}
***	***

FIGURE 9

Delimiter	Candidates
Item Left Delimiter	<TR><TD><B> TR><TD><B> R><TD><B> ><TD><B> <TD><B> TD><B> D><B> ><B> <B> B> >
Item Right Delimiter	</B></TD><TD><I> </B></TD><TD><I </B></TD><TD>< </B></TD><TD> </B></TD><TD </B></TD><T </B></TD>< </B></TD> </B></TD </B></T </B></ </B>< </B> </B </ <
Price Left Delimiter	</B></TD><TD><I> /B></TD><TD><I> B></TD><TD><I> ></TD><TD><I> </TD><TD><I> /TD><TD><I> TD><TD><I> D><TD><I> ><TD><I> <TD><I> TD><I> D><I> ><I> <I> I> >

**FIGURE 10A**

**FIGURE 10B**



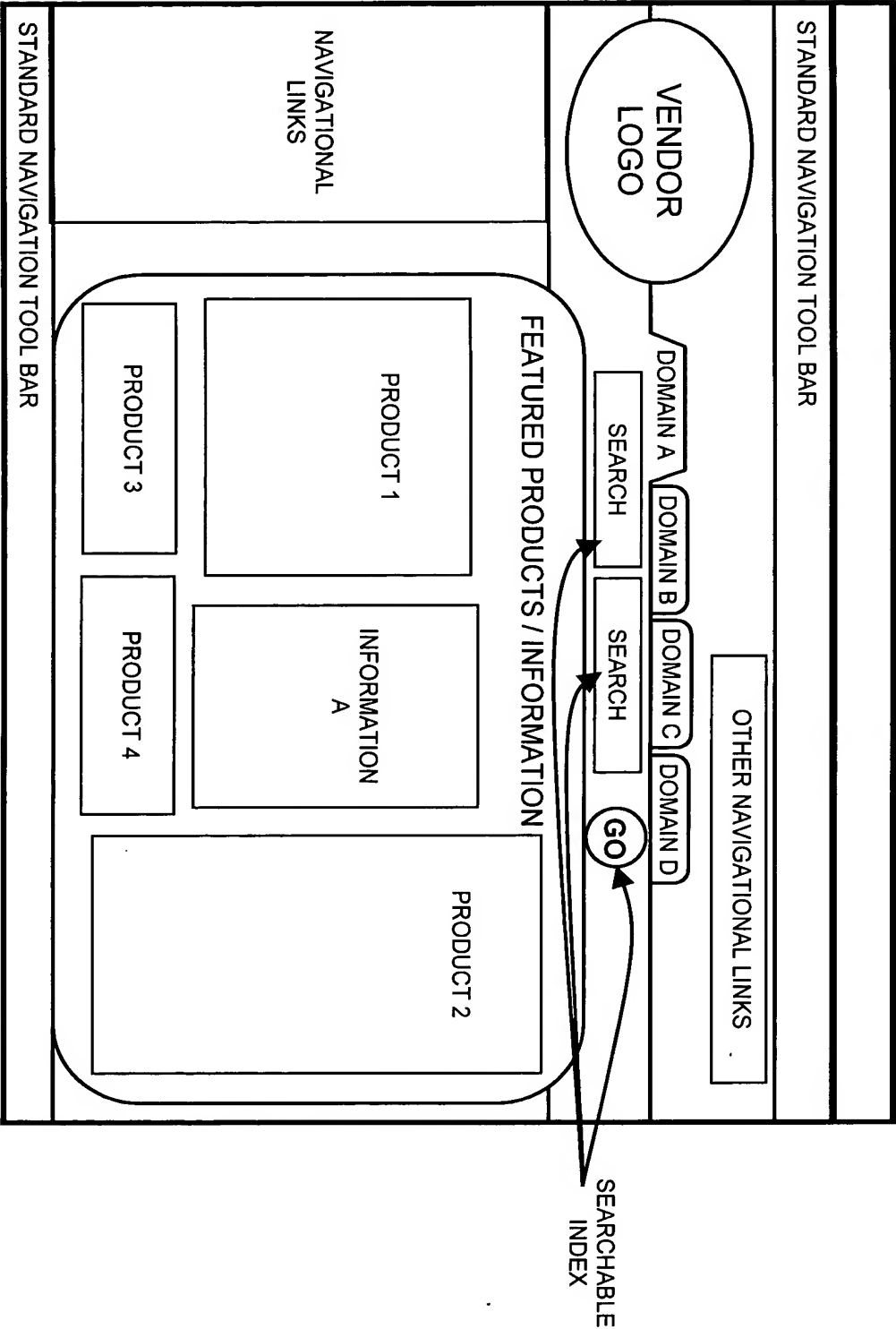


FIGURE 11

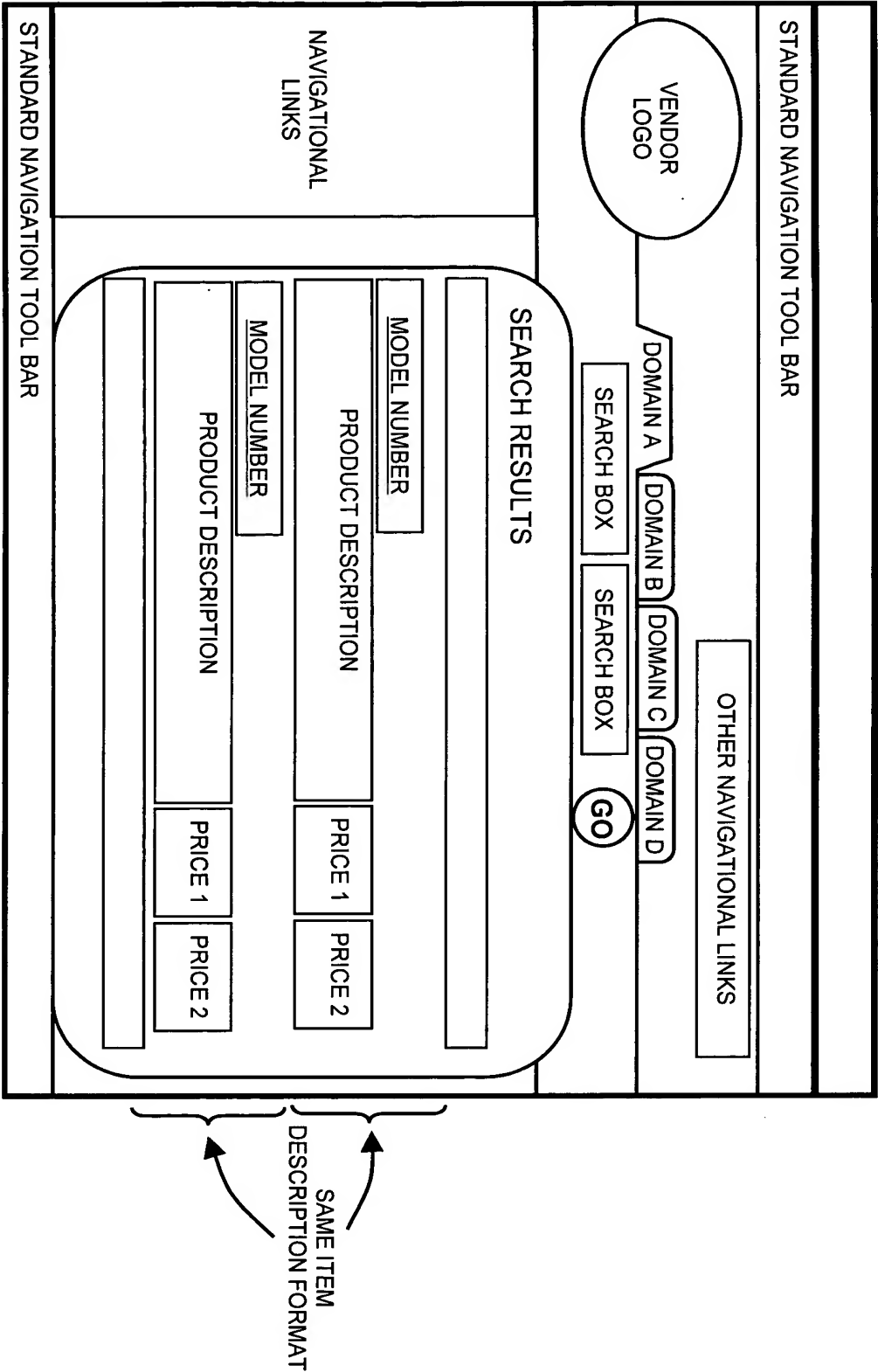


FIGURE 12

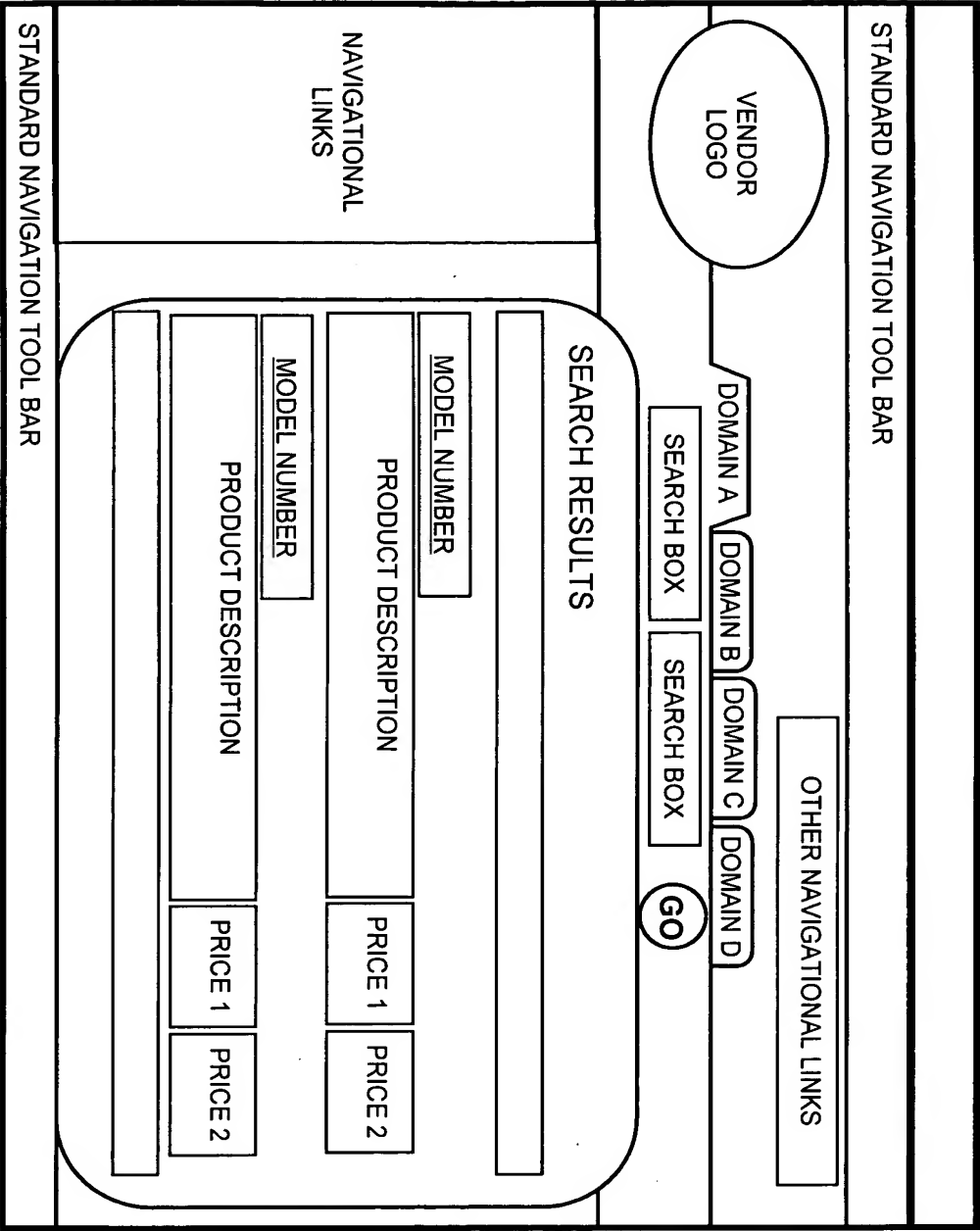
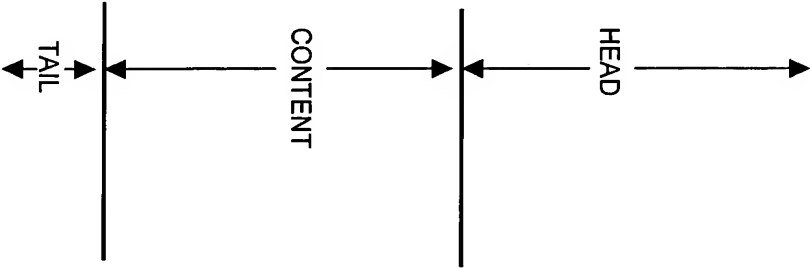
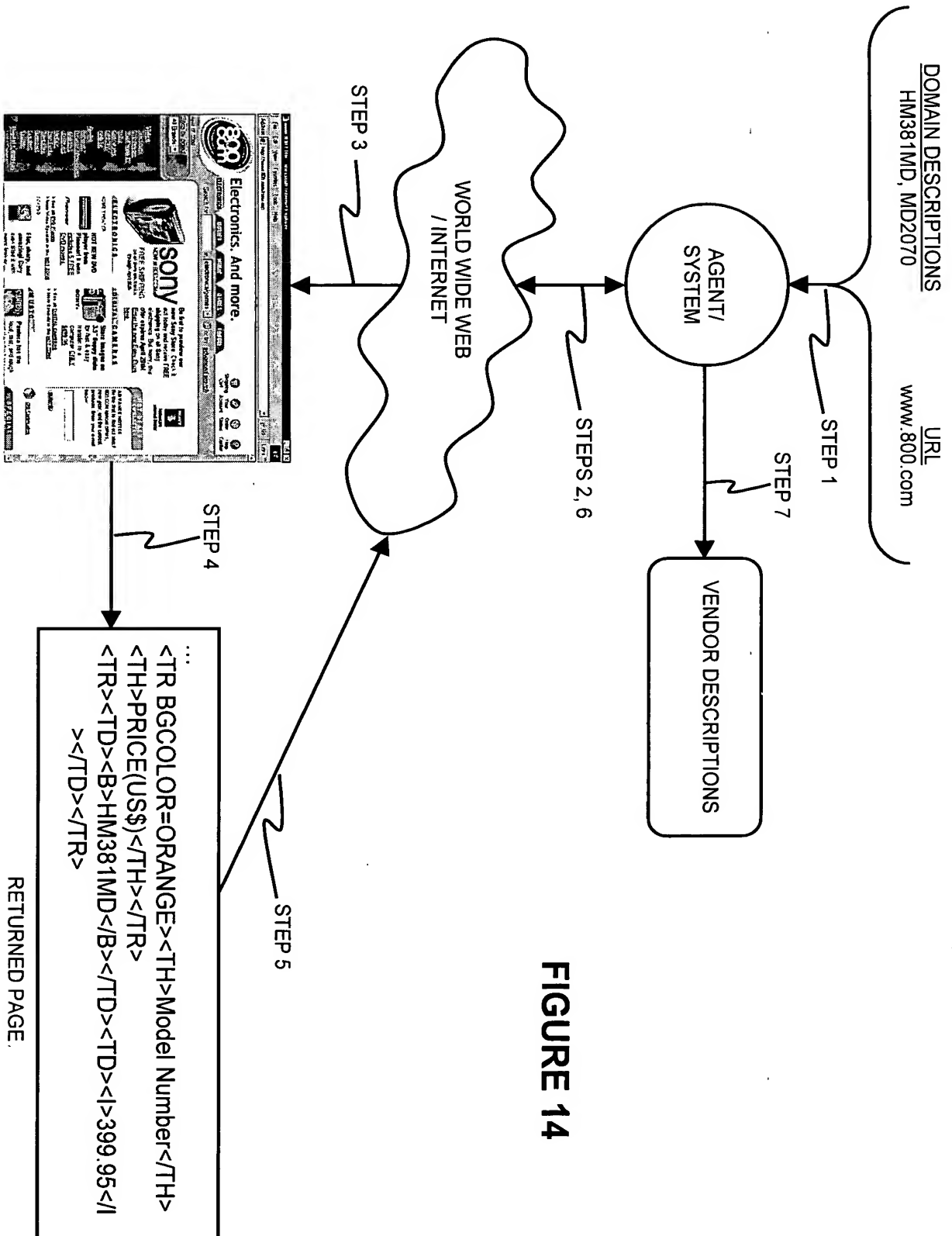


FIGURE 13





www.800.COM - Netscape

Can't decide on the perfect gift?

**800.COM**

**ELECTRONICS** **MOVIES** **MUSIC** **GAMES** **FORUM**

Search for:  electronics

**Search Results**

**Products**  
Your search for md returned 19 items. Showing items 1 - 19.

Product Search Results	Price
<b>Kenwood MASK MD Music System HM381MD</b> Kenwood MASK Music System, Self-Hiding Revolving Faceplate, 10 Watts Per Channel, MD Recorder, CD Player, Sophisticated Styling, Silver with Gray Accents, 2-Way High Gloss Speakers, Remote Control. <i>Usually ships within 24 hours</i>	List Price \$500.00 Your Price \$399.95 <a href="#">wish list</a> <a href="#">buy now</a>
<b>Kenwood MiniDisc Recorder MD2070</b> Kenwood MiniDisc Recorder, 10 Second Digital Anti Skip, 24-Bit Resolution A/D and D/A Converters, CD Text Transfer (via Direct Digital Connection), Sampling Rate Converter, Disc and Track Naming, Silver Finish, Remote Control with Jog Shuttle. <i>Usually ships within 24 hours</i>	List Price \$700.00 Your Price \$599.95 <a href="#">wish list</a> <a href="#">buy now</a>
<b>Kenwood MiniDisc Recorder MD203</b> Kenwood MiniDisc Recorder, 10 Second Digital Anti Skip, 20-Bit Resolution A/D and D/A Converters, Sampling Rate Converter, Disc and Track Naming, Black Finish, Remote Control. <i>Usually ships within 24 hours</i>	List Price \$300.00 Your Price \$249.95 <a href="#">wish list</a> <a href="#">buy now</a>

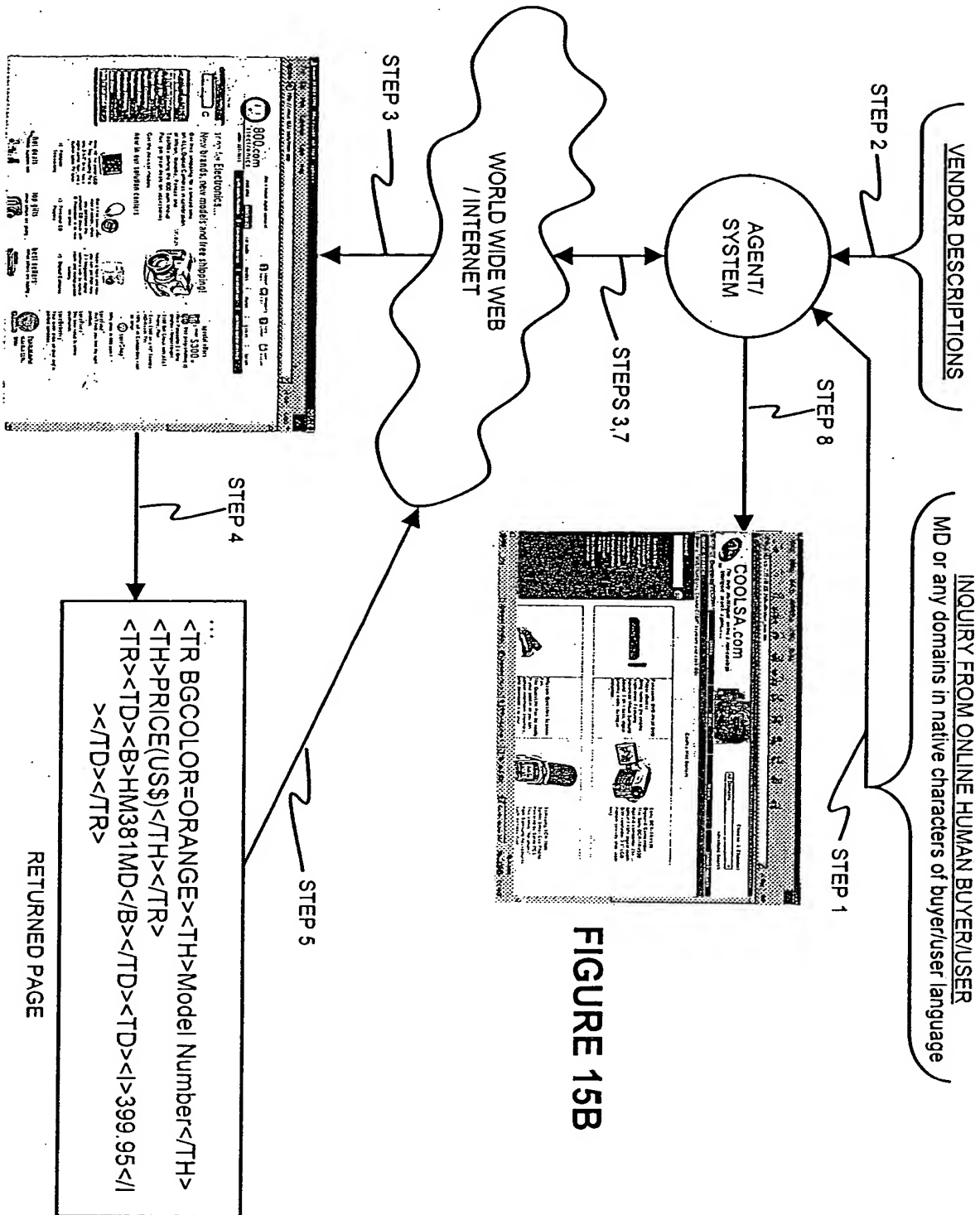
**VIDEO**  
Teletext  
DVD Player  
TV-Recording  
VCR  
Camcorder  
Hi-Fi

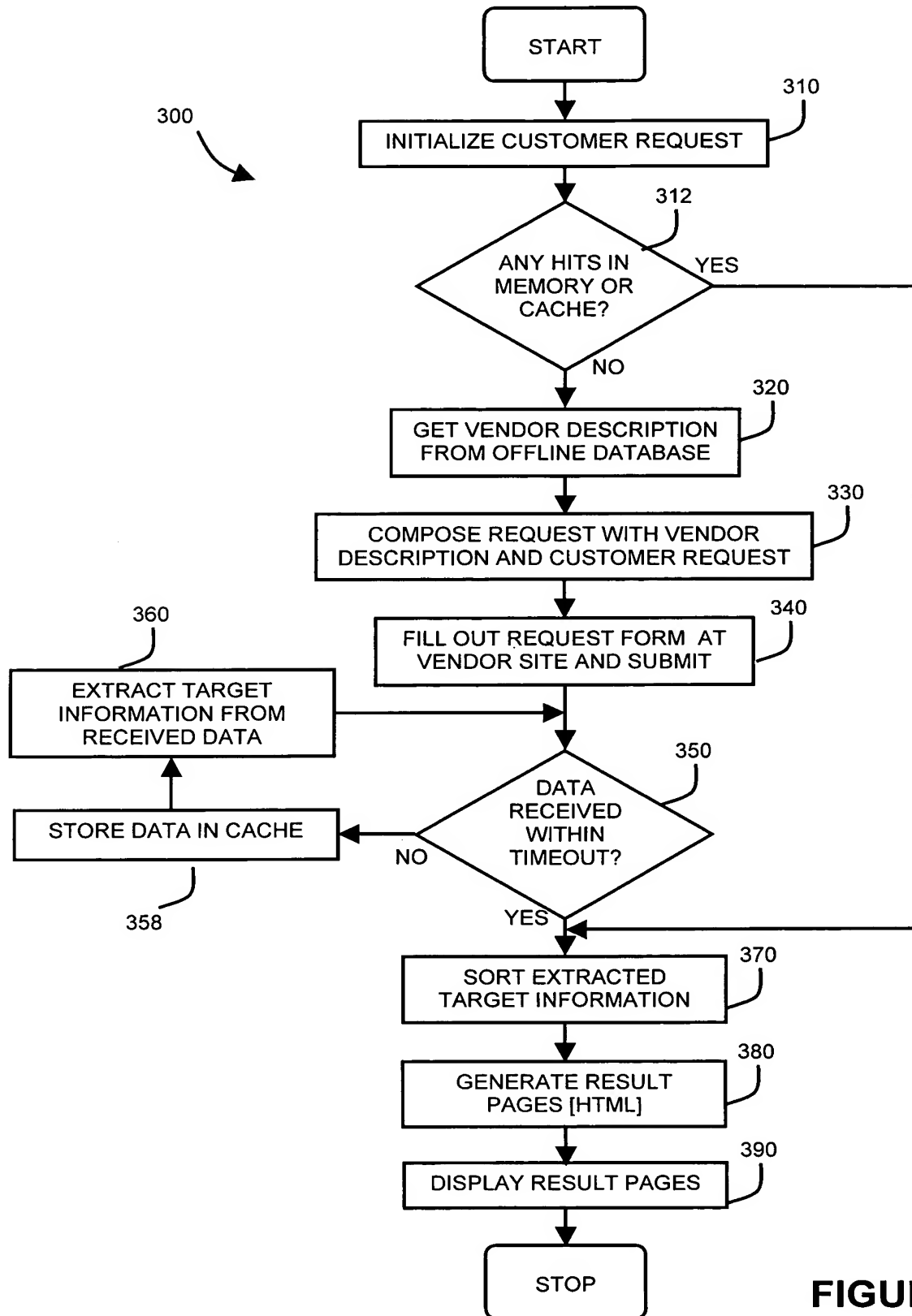
**AUDIO**  
Stereo  
Receptor  
Preamp / Processor  
Amplifier  
Equalizer  
CD Player  
Tape Deck  
Hi-Fi  
Speakers

**DIGITAL CAMERAS**

Document Done

FIGURE 15A





**FIGURE 15C**

**Vendor Information** [X]

Vendor Information | Add Vendor

Add Vendor

**Details**

Vendor Name:

URL:

Form's URL:

Learning Domain:

☒ Provide Training Examples

☐ Enter Wrapper For This Vendor

Head:

Left Delimiter of Item:

Left Delimiter of Price:

Tail:

Right Delimiter of Item:

Right Delimiter of Price:

Save

OK Cancel Apply

**FIGURE 16**



**Vendor Information** [X]

Vendor Information | Add Vendor

Add Vendor

Details

Vendor Name:

URL:

Form's URL:

Learning Domain:

☒ Provide Training Examples

☐ Enter Wrapper For This Vendor

Head:

Tail:

Left Delimiter of Item:

Right Delimiter of Item:

Left Delimiter of Price:

Right Delimiter of Price:

Save

OK Cancel Apply

FIGURE 17

**Vendor Information** [X]

Vendor Information | **Add Vendor**

Vendor Information

Vendor Name:

**Details**

Vendor Name:

URL:

Form's URL:

Learning Domain:

**Wrapper**

Head: <input type="text"/>	Tail: <input type="text"/>
Left Delimiter of Item: <input type="text"/>	Right Delimiter of Item: <input type="text"/>
Left Delimiter of Price: <input type="text"/>	Right Delimiter of Price: <input type="text"/>

**FIGURE 18**

**Vendor Information** [X]

Vendor Information | Add Vendor

Vendor Information

Vendor Name:

**Details**

Vendor Name:

URL:

Form's URL:

Learning Domain:

**Wrapper**

Head:

Tail:

Left Delimiter of Item:

Right Delimiter of Item:

Left Delimiter of Price:

Right Delimiter of Price:

**FIGURE 19**

**Training Data** [X]

**Training Example**

Vendor:

Vendor	Training Example
1cache.com	DVD Virtual Notebook Theater with I-Glas
1cache.com	JVC XV523GD Dolby Digital DVD Player
1cache.com	Pioneer DVL-919 - Combination LD/DVD/

Vendor:

Example:

**FIGURE 20**

**Learn Vendor Description**

**Learn Vendor Description**

**Learning Option**

☒ **Learn All**

☐ **Learn One**

**Vendor Name:**

**Learn Now** **Exit**

**FIGURE 21**



**Learn Vendor Description**

**Learn Vendor Description**

**Learning Option**

☐ Learn All

☒ Learn One

**Vendor Name:**

**Learn Now** **Exit**

**FIGURE 22**

**Vendor Information** [X]

Vendor Information | Add Vendor

**Vendor Information**

Vendor Name:

**Details**

Vendor Name:

URL:

Form's URL:

Learning Domain:

**Wrapper**

Head:

Tail:

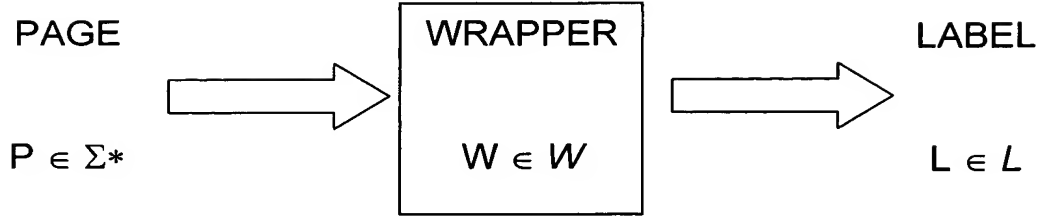
Left Delimiter of Item:

Right Delimiter of Item:

Left Delimiter of Price:

Right Delimiter of Price:

**FIGURE 23**



**FIGURE 24**

```

procedure execHLRT (wrapper (h, li, ri, lp, rp, t), page P)
    m ← 0
    scan in P to line h
    while the next occurrence of li in P occurs before the next occurrence of t
        m ← m + 1
        scan in P to the next occurrence of li in P; save position as bm,i
        scan in P the next occurrence of ri; save position as em,i
        scan in P to the next occurrence of lp in P; save position as bm,p
        scan in P to next occurrence of rp; save position as em,p
    return label { . . . , <<bmi, emi>, <bmp, emp>> }

```

**FIGURE 25**

```

Procedure learnHLRT (examples ε)
1. Generate the candidate sets Candsr(l, ε), Candsl(l, ε), Candsr(p, ε), Candsl(p, ε).

2. Enumerate the cross product of these candidate sets; each element W = (h, li, ri, lp, rp, t), of this cross product is a wrapper. Halt if W is satisfactory i.e., execLR(W, Pn) = Ln, for every (Pn, Ln) ∈ ε.

```

**FIGURE 26**



```

/*
* The main problem
*/
procedure learnHLRT (examples  $\epsilon$ ) for each  $1 < k < K$ 
  for each  $u \in \text{cands}_l(p, \epsilon)$ : if  $\text{valid}_l(u, p, \epsilon)$  then  $l_p \leftarrow u$  and terminate this loop
  for each  $u \in \text{cands}_r(i, \epsilon)$ : if  $\text{valid}_r(u, i, \epsilon)$  then  $r_i \leftarrow u$  and terminate this loop
  for each  $u \in \text{cands}_r(p, \epsilon)$ : if  $\text{valid}_r(u, p, \epsilon)$  then  $r_p \leftarrow u$  and terminate this loop
  for each  $u_{li} \in \text{cands}_l(i, \epsilon)$ 
    for each  $u_h \in \text{cands}_h(\epsilon)$ 
      for each  $u_t \in \text{cands}_t(\epsilon)$ 
        if  $\text{valid}_{l,h,t}(u_{li}, u_h, u_t, \epsilon)$  then
           $l_i \leftarrow u_{li}$ ,  $h \leftarrow u_h$ ,  $t \leftarrow u_t$ , and terminate these three loops
  return HLRT wrapper ( $h, l_i, r_i, l_p, r_p, t$ )

/*
*Generate a set of candidates for left delimiter of price attribute
*/
procedure  $\text{cands}_l(\text{attribute price, examples } \epsilon)$ 
  return the set of all suffixes of the shortest string in  $\text{neighbors}_l(\text{price}, \epsilon)$ 

/*
*Generate a set of candidates for right delimiter of attribute a. Here a could be item or price
*/
procedure  $\text{cands}_r(\text{attribute a, examples } \epsilon)$ 
  return the set of all prefixes of the shortest string in  $\text{neighbors}_r(a, \epsilon)$ 

/*
* Generate a set of candidates for a page's head
*/
procedure  $\text{cands}_h(\text{examples } \epsilon)$ 
  return the set of all substrings of the shortest string in  $\text{heads}(\epsilon)$ 

/*
*Generate a set of candidates for a page's tail
*/
procedure  $\text{cands}_t(\text{example } \epsilon)$ 
  return the set of all substrings of the shortest string in  $\text{tails}(\epsilon)$ 

/*
*Determine whether a particular candidate for the left delimiter of price is valid
*This procedure applies constraints C3
*/
procedure  $\text{valid}_l(\text{candidate } u, \text{attribute price, examples } \epsilon)$ 
  for each  $s \in \text{neighbors}_l(\text{price}, \epsilon)$ : if  $u$  is not a proper suffix of  $s$  then return FALSE

```

**Figure 27A**

```

for each  $s \in \text{tails}(\varepsilon)$ : If  $u$  is a sub string of  $s$  then return FALSE
return TRUE

/*
*Determine whether a particular candidate for the right delimiter of item or price is
*valid
*This procedure applies constraints C1 and C2
*/
procedure validr(candidate  $u$ , attribute  $a$ , examples  $\varepsilon$ )
for each  $s \in \text{attrs}(a, \varepsilon)$ : if  $u$  is a sub string of  $s$  then return FALSE
for each  $s \in \text{neighbors}(a, \varepsilon)$ : if  $u$  is not a prefix of  $s$  then return FALSE
return TRUE

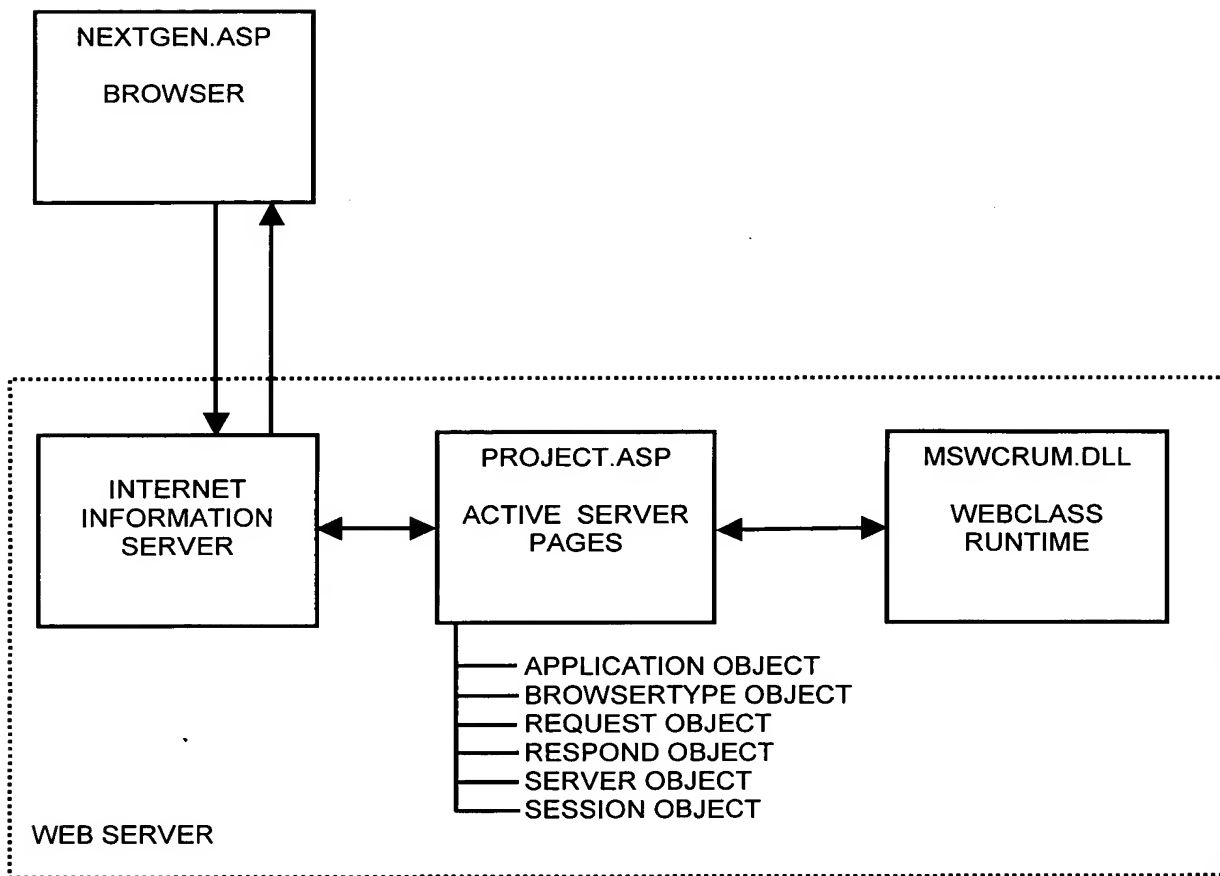
/*
*Determine whether a particular combination of candidate  $u_h$ ,  $u_t$ , and  $u_l$  for  $h$ ,  $t$ , and
* $l$  respectively are satisfactory.
*/
procedure validli,h,t(candidates  $u_{li}$ ,  $u_h$ ,  $u_t$ , example  $\varepsilon$ )
for each  $s \in \text{heads}(\varepsilon)$ 
    if  $u_h$  is not a sub string of  $s$  then return FALSE
    if  $u_{li}$  is not a proper suffix of scan ( $s$ ,  $u_h$ ) then return FALSE
    if  $u_t$  occurs before  $u_{li}$  in scan ( $s$ ,  $u_h$ ), then return FALSE
for each  $s \in \text{tails}(\varepsilon)$ 
    if  $u_t$  is not a sub string of  $s$  then return FALSE
    if  $u_{li}$  occurs before  $u_t$  in  $s$  then return FALSE
for each  $s \in \text{seps}(\varepsilon)$ 
    if  $u_{li}$  is not a proper suffix of  $s$  then return FALSE
    if  $u_t$  occurs before  $u_{li}$  in  $s$  then return FALSE
return TRUE

/*
*Return a set of containing all values of a attribute, either item( $i$ ) or price( $p$ ) in each
*example
*/
procedure attrs(attribute  $a$ , examples  $\varepsilon$ )
return  $\bigcup_{(P_n, L_n) \in \varepsilon} (P_n[b_{m,a}, e_{m,a}] \cup \dots \cup (b_{m,k}, e_{m,k}), \dots) \in L_n$ 

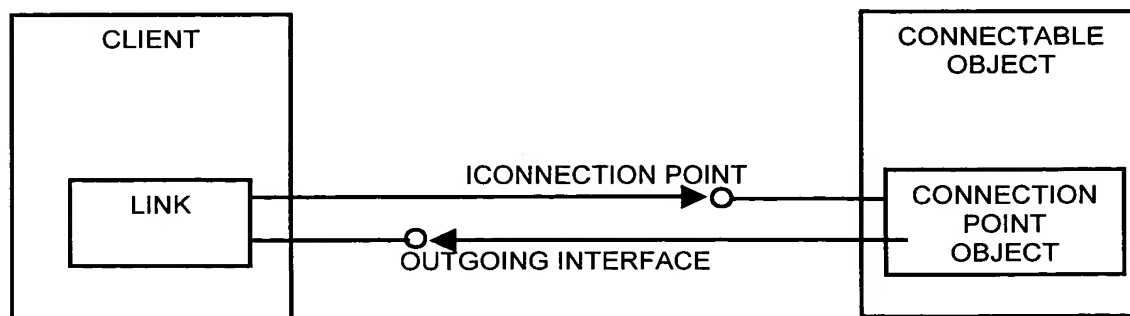
/*
*Return all strings to the left of an attribute, whether these strings are in the heads
*or the bodies of the pages
*/
procedure neighborsl(attribute  $a$ , examples  $\varepsilon$ )
if  $a=i$  then return  $\text{seps}(i, \varepsilon) \cup \text{heads}(\varepsilon)$  else return  $\text{seps}(a, \varepsilon)$ 

```

**FIGURE 27B**

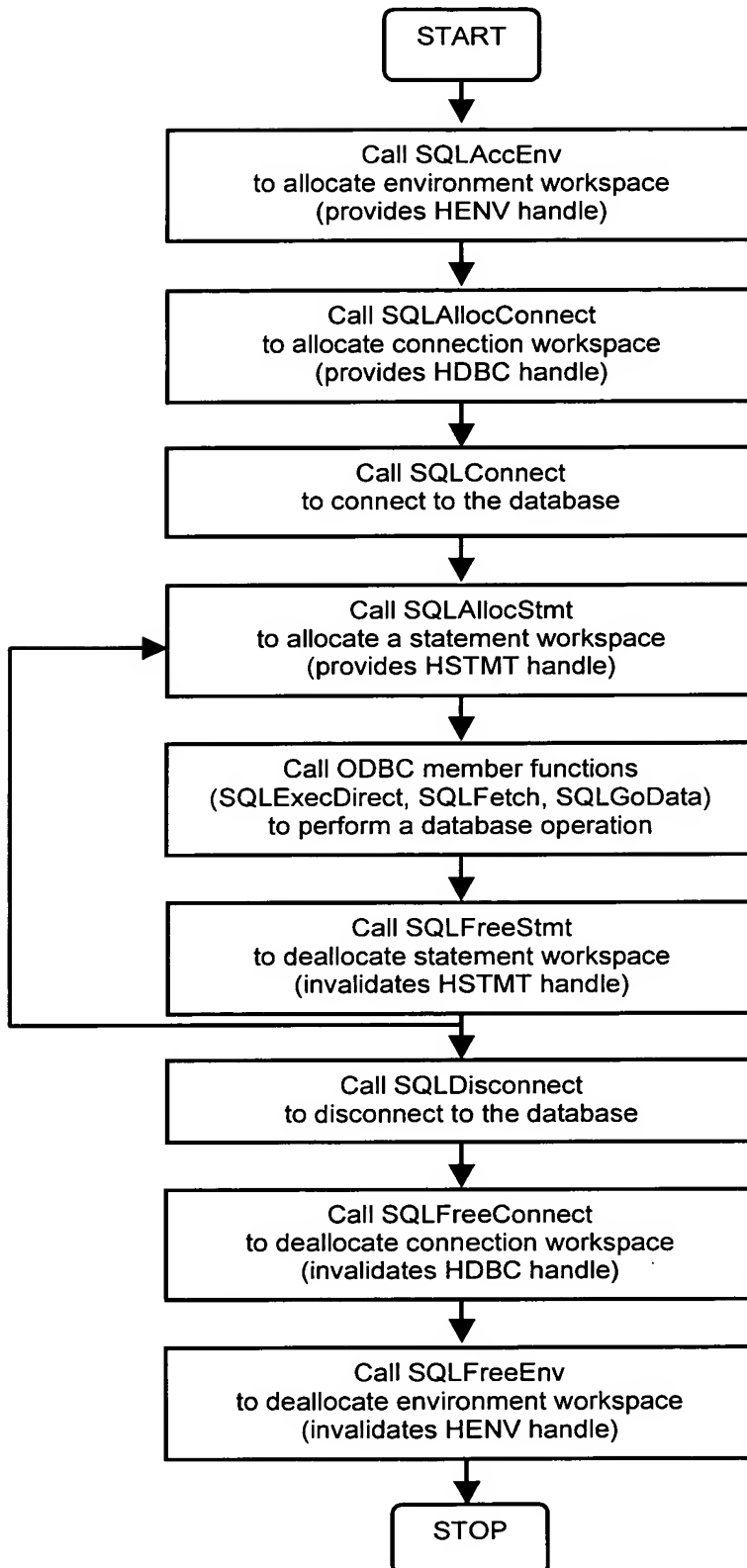


**FIGURE 28**

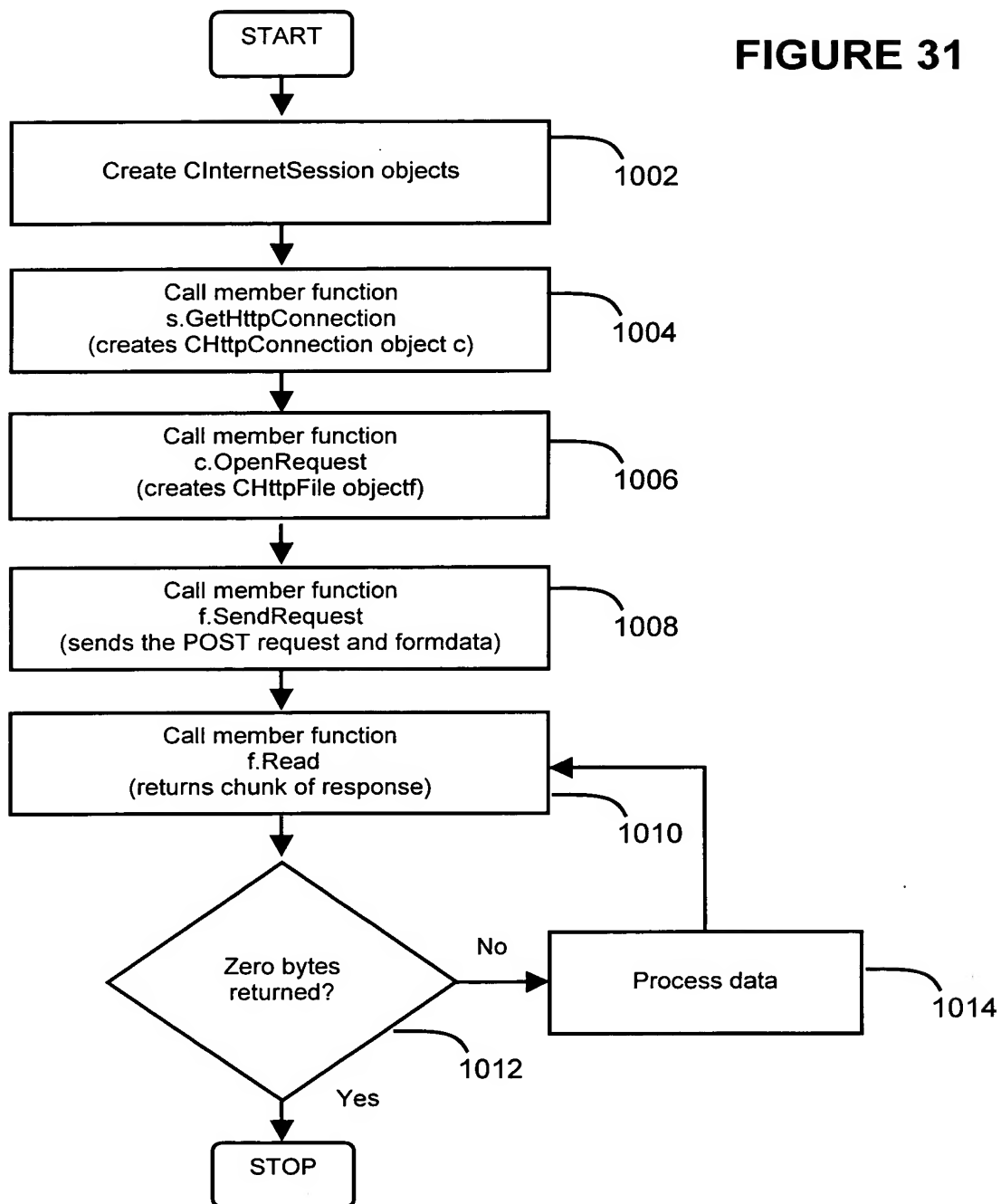


**FIGURE 29**

**FIGURE 30**



**FIGURE 31**



NAVIGATION BUTTONS TO OTHER PAGES IN WEBSITE

WEBSITE LOGO

Choose a Channel  
All Ontological Domains

Advanced Search

QUICK SEARCH

Enter a "MULTILINGUAL CHARACTER" keyword and click GO!

Keyword:

SEARCH TIPS  
\*  
\*  
\*

MEMBER SIGN IN

Registered Vendor Links  
[Abcd.com](#) [cdef.com](#)  
[1234z.com](#) [23ezid..com](#)  
[pkkw.com](#) [er5icjn.com](#)

WEBSITE INTRODUCTORY  
TEXT AND IMAGES

Reverse Advertising Sites


FIGURE 32

<div>NAVIGATION BUTTONS TO OTHER PAGES IN WEBSITE</div>				
<div>WEBSITE LOGO</div>				
<div>Choose a Channel</div> <div>ALL G2B PROCUREMENT DOMAINS</div>				
<div>Advanced Search</div>				
<div>QUICK SEARCH</div>				
<div>Enter a "MULTILINGUAL CHARACTER" keyword and click GO!</div>				
<div>Keyword: <input type="text"/></div>				
<div>GO!</div>				
<div>SEARCH TIPS</div> <div>* * *</div>				
<div><div>Company A</div><div>Information about G2B Company A</div><div>Company G</div><div>Information about G2B Company G</div></div>				
<div>Reverse Advertising Sites</div>				
<div>Registered Vendor Links</div> <div><div>Abcd.com</div><div>cdef.com</div><div>1234z.com</div><div>23ezid.com</div><div>pkkw.com</div><div>er5lcn.com</div></div>				
<div>Feedback</div> <div>Submit!</div>				

FIGURE 33

NAVIGATION BUTTONS TO OTHER PAGES IN WEBSITE

WEBSITE LOGO

Choose a Channel  
All G2B Tender Procurement Domains 

Advanced Search

DOMAIN A

DOMAIN B

DOMAIN C

DOMAIN D

OTHER DOMAINS

ADVANCED SEARCH AGENTS ARE ON!

Enter a "MULTILINGUAL CHARACTER" keyword and click GO!

SEARCH TIPS

☐ Select All

Multilingual Government Networks

Public Body

Speed

Air/Shipping/Ground/Free Overnight Del.

Ease of Navigation

☐ G2B Company G

↑↑↑↑↑

⇒

EEEE

Time Out

Reserved Price Range

Manufacturer or OEM

Keyword:

From \$  To \$




FIGURE 34



<div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <span>NAVIGATION BUTTONS TO OTHER PAGES IN WEBSITE</span> </div>				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <h2 style="margin: 0;">WEBSITE LOGO</h2> </div> <div style="text-align: center;"> <p>Choose a Channel</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;">All Ontological Domains</div> <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center; margin-top: 2px;">▼</div> </div> </div> <p style="text-align: center; margin-top: 5px;">Advanced Search</p>				
<div style="display: flex; justify-content: space-around; border-bottom: 1px solid black;"> <span>DOMAIN A</span> <span>DOMAIN B</span> <span>DOMAIN C</span> <span>DOMAIN D</span> <span>OTHER DOMAINS</span> </div>				
<p>QUICK SEARCH</p>				
<p>Enter a "MULTILINGUAL CHARACTER" keyword and click GO!</p>				
<p>Keyword:</p> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">GO!</div>	<p>For B2B</p> <p>Trading Exchanges, Auctions, Vertical Portals, Production and Non-Production e-Procurement Supplies</p> <p>Agricultural / Farming Apparel Automotive/ Transportation Business Machines Computers &amp; Electronics Industrial Equipment Medical &amp; Scientific Equipment</p> <p>More Business to Business MRO/Raw Materials Office Furnishings Office Supplies Real Estate Restaurant/Hospitality Services</p> <p>Reverse Advertising Sites</p>			
<p>SEARCH TIPS</p> <p style="text-align: center;">* * *</p>				
<p>Registered Vendor Links</p> <p>Abcd.com cdef.com 1234z.com 23ezid.com pkkw.com erf5cin.com</p>	<p>Feedback</p> <div style="border: 1px solid black; width: 100%; height: 30px; margin-bottom: 5px;"></div> <p>Submit!</p>			

FIGURE 35

NAVIGATION BUTTONS TO OTHER PAGES IN WEBSITE

WEBSITE LOGO

Choose a Channel  
All Ontological Domains

Advanced Search

DOMAIN A

DOMAIN B

DOMAIN C

DOMAIN D

OTHER DOMAINS

ADVANCED SEARCH AGENTS ARE ON!

Enter a "MULTILINGUAL CHARACTER" keyword and click GO!

SEARCH TIPS

Select All

Multilingual B2B Suppliers

Online Stores	Speed	Air/Shipping/Ground/Free Overnight Del.	Ease of Navigation
<input type="checkbox"/> B2B Company 1	↑↑↑↑↑	⇒	EEEE
<input type="checkbox"/> B2B Company 2	↑↑↑↑↑↑↑	⇒	EEEEEE
<input type="checkbox"/> B2B Company 3	↑↑↑↑↑	⇒	EEEE
<input type="checkbox"/> B2B Company 4	↑↑↑↑↑	⇒	EEEE

Time Out

Price Range

Manufacturer

Keyword:

From \$ To \$

GO!

FIGURE 36





NAVIGATION BUTTONS TO OTHER PAGES IN WEBSITE				
Choose a Channel				
All Domains 				
Advanced Search				
DOMAIN A	DOMAIN B	DOMAIN C	DOMAIN D	OTHER DOMAINS
QUICK SEARCH				
Enter a "MULTILINGUAL CHARACTER" keyword and click GO!				
Keyword: <input type="text"/>				
				
SEARCH TIPS * * *				
Hot Sellers Domain A				
Image Item A	Description Item A	Image Item B	Description Item B	
Image Item 1	Description Item 1	Image Item G	Description Item G	
Image Item A	Description Item A	Image Item K	Description Item K	
				
Abcd.com cdef.com 1234z.com 23ezid..com pkkw.com erf5cin.com				
				
Submit!				

FIGURE 37

NAVIGATION BUTTONS TO OTHER PAGES IN WEBSITE				
WEBSITE LOGO				
Choose a Channel				
All Domains <input type="button" value="v"/>				
Advanced Search				
DOMAIN A	DOMAIN B	DOMAIN C	DOMAIN D	OTHER DOMAINS
ADVANCED SEARCH AGENTS ARE ON!				
Enter a "MULTILINGUAL CHARACTER" keyword and click GO!				
SEARCH TIPS				
<input type="checkbox"/> Select All				
English Vendors				
Online Stores	Speed	Air/Shipping/Ground/Free Overnight Del.	Ease of Navigation	
<input type="checkbox"/> Store 1AAC	↑↑↑↑	⇒	EEEE	
<input type="checkbox"/> Store 1443A	↑↑↑↑↑↑	⇒	EE	
<input type="checkbox"/> Store 1443A	↑↑↑↑↑	⇒	EE	
Chinese Vendors				
<input type="checkbox"/> Select All				
<input type="checkbox"/> Store C5A3	↑↑↑↑↑↑	⇒	EEEE	
<input type="checkbox"/> Store DRGWS4	↑↑↑↑↑↑	⇒	EEEE	
Time Out				
Price Range				
From \$ To \$				
Manufacturer				
Keyword:				
<input type="button" value="GO!"/>				

FIGURE 38

NAVIGATION BUTTONS TO OTHER PAGES IN WEBSITE

WEBSITE LOGO

Choose a Channel  
ALL DOMAINS

Advanced Search

DOMAIN A    DOMAIN B    DOMAIN C    DOMAIN D    OTHER DOMAINS

QUICK SEARCH

Enter a "MULTILINGUAL CHARACTER" keyword and click GO!

Keyword:

SEARCH TIPS  
\*  
\*  
\*

Search Results

Products  
Your search for XX returned 5 Domain C items.

Model / Features	Store	Price
<u>AMST XX Widget</u> [Features]	Store 1443A	\$399.95 Buy now
<u>AMST2 XX Widget</u> [Features]	Store 1443A	\$329.95 Buy now
<u>AMST7 XX Widget</u> [Features]	Store DRGWS4	\$459.95 Buy now
<u>AMST7 XX Widget</u> [Features]	Store 4U\$US	\$499.95 Buy now
<u>ZRTQ XX Widget</u> [Features]	Store OOHE	\$529.95 Buy now

FIGURE 39

[WEBSITE INTERNAL LINKS]				
<div>[SEARCH WEBSITE LOGO]</div>		<div>Choose A Channel</div> <div>SELECTED CHANNEL ▾</div> <div>Advanced Search</div>		
<div>DOMAIN A</div>		<div>DOMAIN B</div>	<div>DOMAIN C</div>	<div>DOMAIN D</div>
<b>QUICK SEARCH</b>				
Enter a "non-multilingual or multilingual character" keyword and hit enter or click GO!				
<div>Your Country/Locale:</div> <div>UNITED STATES ▾</div>				
<div>Keyword:</div> <div></div>				
<div>GO</div>				
<div>Search Tips:</div>				
<b>HOT SELLERS AND AUCTION ITEMS</b>				
<div>MODEL PICTURE</div>		<div>PRODUCT DESCRIPTION</div>	<div>MODEL PICTURE</div>	<div>PRODUCT DESCRIPTION</div>
<div>MODEL PICTURE</div>		<div>PRODUCT DESCRIPTION</div>	<div>MODEL PICTURE</div>	<div>PRODUCT DESCRIPTION</div>

FIGURE 40

WEBSITE INTERNAL LINKS

SEARCH WEBSITE  
LOGO

Choose A Channel  
SELECTED CHANNEL  
Advanced Search

DOMAIN A  
DOMAIN B  
DOMAIN C  
DOMAIN D

QUICK SEARCH

Enter a "non-multilingual or multilingual character" keyword and hit enter or click GO!

Your Country/Locale:

UNITED STATES  
Country A  
Country B  
Country C  
Country D  
Country E  
Country F  
Country G  
Country H  
Country I

HOT SELLERS AND AUCTION ITEMS

MODEL  
PICTURE

PRODUCT  
DESCRIPTION

MODEL  
PICTURE

PRODUCT  
DESCRIPTION

MODEL  
PICTURE

PRODUCT  
DESCRIPTION

MODEL  
PICTURE

PRODUCT  
DESCRIPTION

FIGURE 41

[WEBSITE INTERNAL LINKS]

[SEARCH WEBSITE LOGO]

Choose A Channel  
SELECTED CHANNEL ▾  
Advanced Search

DOMAIN A

DOMAIN B

DOMAIN C

DOMAIN D

QUICK SEARCH

Enter a "non-multilingual or multilingual character" keyword and hit enter or click GO!

Your Country/Locale:  
UNITED STATES ▾

Keyword:  

GO

Search Tips:

Search Results

Products  
Your search for XXX returned NNN item(s)

Description/Thumbnail		Store	Price
MODEL PICTURE	DESCRIPTION	STORE	\$PRICE buy now
MODEL PICTURE	DESCRIPTION	STORE	\$PRICE buy now
MODEL PICTURE	DESCRIPTION	STORE	\$PRICE buy now

FIGURE 42



[WEBSITE INTERNAL LINKS]									
[SEARCH WEBSITE LOGO]				Choose A Channel					
				SELECTED CHANNEL ▾		Advanced Search			
DOMAIN A		DOMAIN B		DOMAIN C		DOMAIN D			
ADVANCED SEARCH AGENTS ARE ON!									
Enter a "non-multilingual or multilingual character" keyword and hit enter or click GO!									
Your Country/Locale: UNITED STATES ▾									
Search Tips:									
Store Speed Air/Shipping/Ground/Free Overnight Delivery Ease of Navigation									
<input type="checkbox"/> Store A Rating		Speed Rating		Delivery Rating		Navigation Rating			
<input type="checkbox"/> Store B Rating		Speed Rating		Delivery Rating		Navigation Rating			
<input type="checkbox"/> Store C Rating		Speed Rating		Delivery Rating		Navigation Rating			
<input type="checkbox"/> Store D Rating		Speed Rating		Delivery Rating		Navigation Rating			
<input type="checkbox"/> Store E Rating		Speed Rating		Delivery Rating		Navigation Rating			
<input type="checkbox"/> Store F Rating		Speed Rating		Delivery Rating		Navigation Rating			
Time out									
Price and/or bid range									
From \$				To \$					
Maker/Seller/Publisher/Artist Actor									
Keyword									
GO									

FIGURE 43

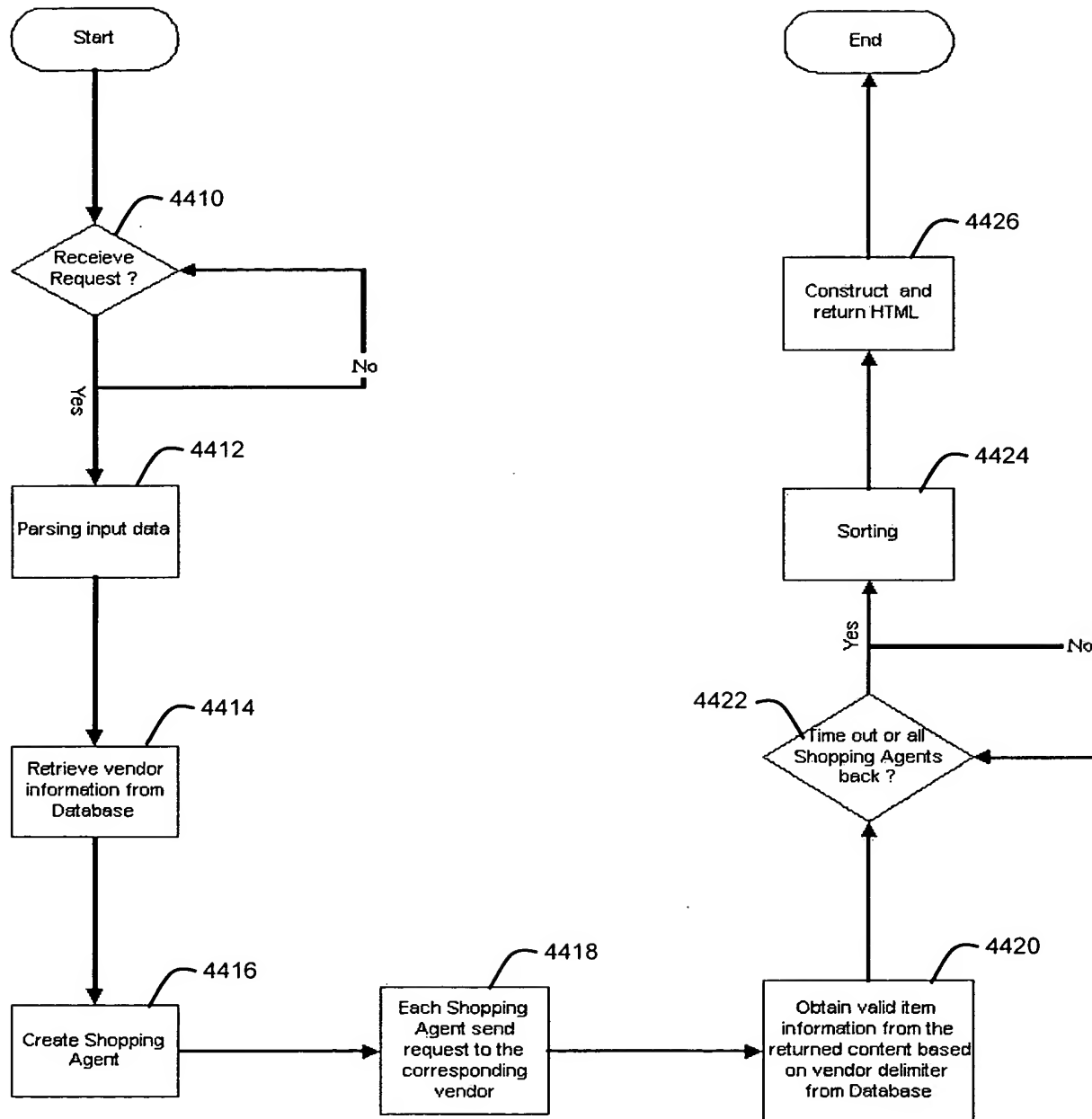


FIG. 44

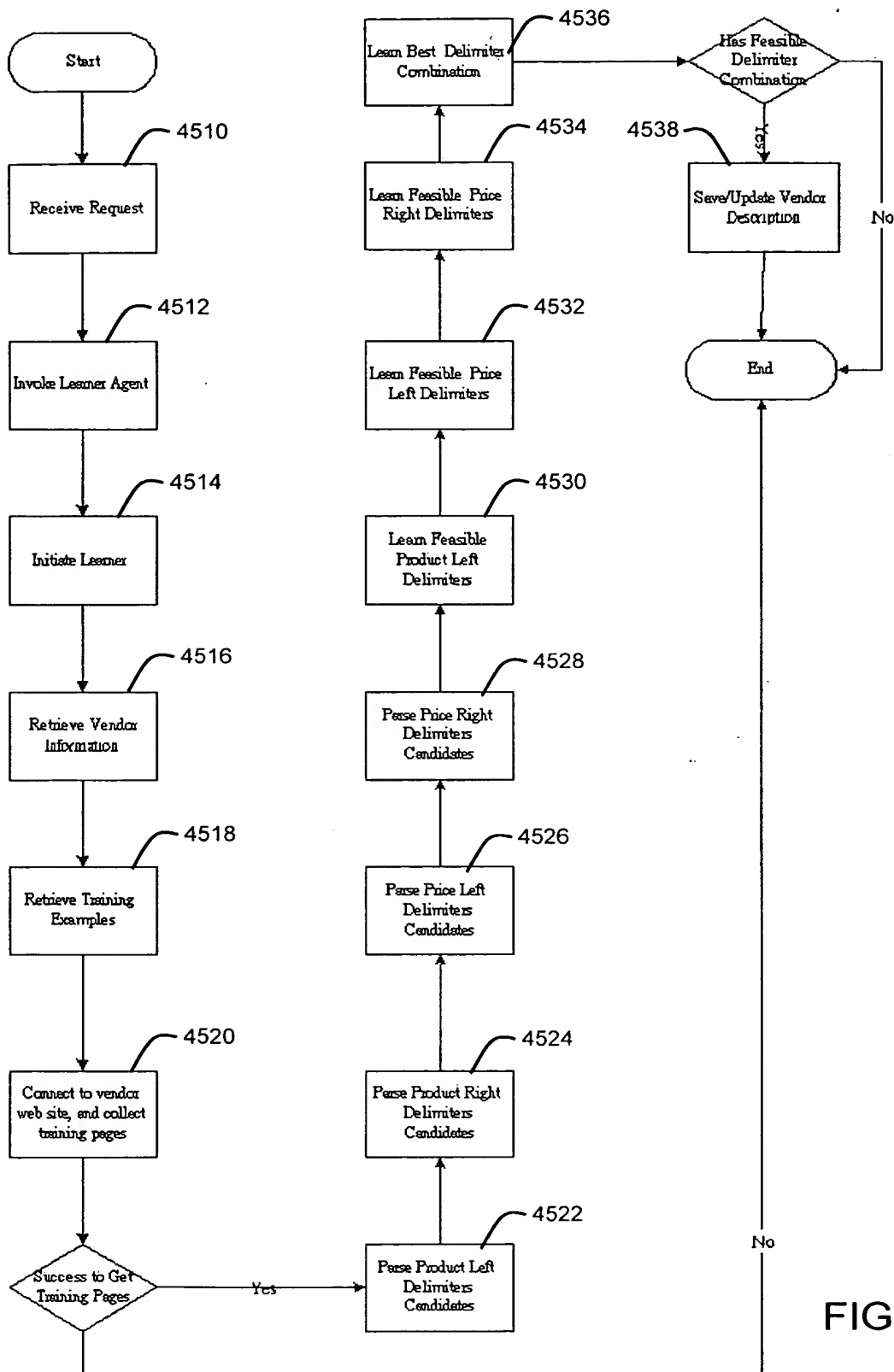


FIG. 45

<u>Data Field</u>	<u>Description</u>	<u>Allowed Value</u>
Country ID	Distinct Country Name	Any
Country Name	Display Name of the Country.	Any
Encoding	Display MIME type of the Web sites in this country.	Valid MIME Type, A pull-down list of MIME Type is provided for selection

**FIGURE 46**

COOLSA Administration Console			Country   Vendor																																																				
List Of Countries																																																							
<div> <div>List Of Countries</div> <div>Add</div> <table> <tr> <th>Country ID</th><th>Country Name</th><th>Encoding</th><th>Action</th></tr> <tr> <td><a href="#">zh TW</a></td><td>Taiwan</td><td>Big5</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">Norway</a></td><td>Norway</td><td>8859_1</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">Brazil</a></td><td>Brazil</td><td>8859_1</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">Belgium</a></td><td>Belgium</td><td>8859_1</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">Poland</a></td><td>Poland</td><td>UTF8</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">zh HK</a></td><td>Hong Kong SAR</td><td>Big5</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">United Arab Emirates</a></td><td>United Arab Emirates</td><td>8859_1</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">UK</a></td><td>United Kingdom</td><td>8859_1</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">en US</a></td><td>United States</td><td>8859_1</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">India</a></td><td>India</td><td>8859_1</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">Thailand</a></td><td>Thailand</td><td>8859_1</td><td><a href="#">Delete</a></td></tr> <tr> <td><a href="#">Czech</a></td><td>Czech</td><td>8859_1</td><td><a href="#">Delete</a></td></tr> </table> </div>				Country ID	Country Name	Encoding	Action	<a href="#">zh TW</a>	Taiwan	Big5	<a href="#">Delete</a>	<a href="#">Norway</a>	Norway	8859_1	<a href="#">Delete</a>	<a href="#">Brazil</a>	Brazil	8859_1	<a href="#">Delete</a>	<a href="#">Belgium</a>	Belgium	8859_1	<a href="#">Delete</a>	<a href="#">Poland</a>	Poland	UTF8	<a href="#">Delete</a>	<a href="#">zh HK</a>	Hong Kong SAR	Big5	<a href="#">Delete</a>	<a href="#">United Arab Emirates</a>	United Arab Emirates	8859_1	<a href="#">Delete</a>	<a href="#">UK</a>	United Kingdom	8859_1	<a href="#">Delete</a>	<a href="#">en US</a>	United States	8859_1	<a href="#">Delete</a>	<a href="#">India</a>	India	8859_1	<a href="#">Delete</a>	<a href="#">Thailand</a>	Thailand	8859_1	<a href="#">Delete</a>	<a href="#">Czech</a>	Czech	8859_1	<a href="#">Delete</a>
Country ID	Country Name	Encoding	Action																																																				
<a href="#">zh TW</a>	Taiwan	Big5	<a href="#">Delete</a>																																																				
<a href="#">Norway</a>	Norway	8859_1	<a href="#">Delete</a>																																																				
<a href="#">Brazil</a>	Brazil	8859_1	<a href="#">Delete</a>																																																				
<a href="#">Belgium</a>	Belgium	8859_1	<a href="#">Delete</a>																																																				
<a href="#">Poland</a>	Poland	UTF8	<a href="#">Delete</a>																																																				
<a href="#">zh HK</a>	Hong Kong SAR	Big5	<a href="#">Delete</a>																																																				
<a href="#">United Arab Emirates</a>	United Arab Emirates	8859_1	<a href="#">Delete</a>																																																				
<a href="#">UK</a>	United Kingdom	8859_1	<a href="#">Delete</a>																																																				
<a href="#">en US</a>	United States	8859_1	<a href="#">Delete</a>																																																				
<a href="#">India</a>	India	8859_1	<a href="#">Delete</a>																																																				
<a href="#">Thailand</a>	Thailand	8859_1	<a href="#">Delete</a>																																																				
<a href="#">Czech</a>	Czech	8859_1	<a href="#">Delete</a>																																																				

**FIGURE 48**

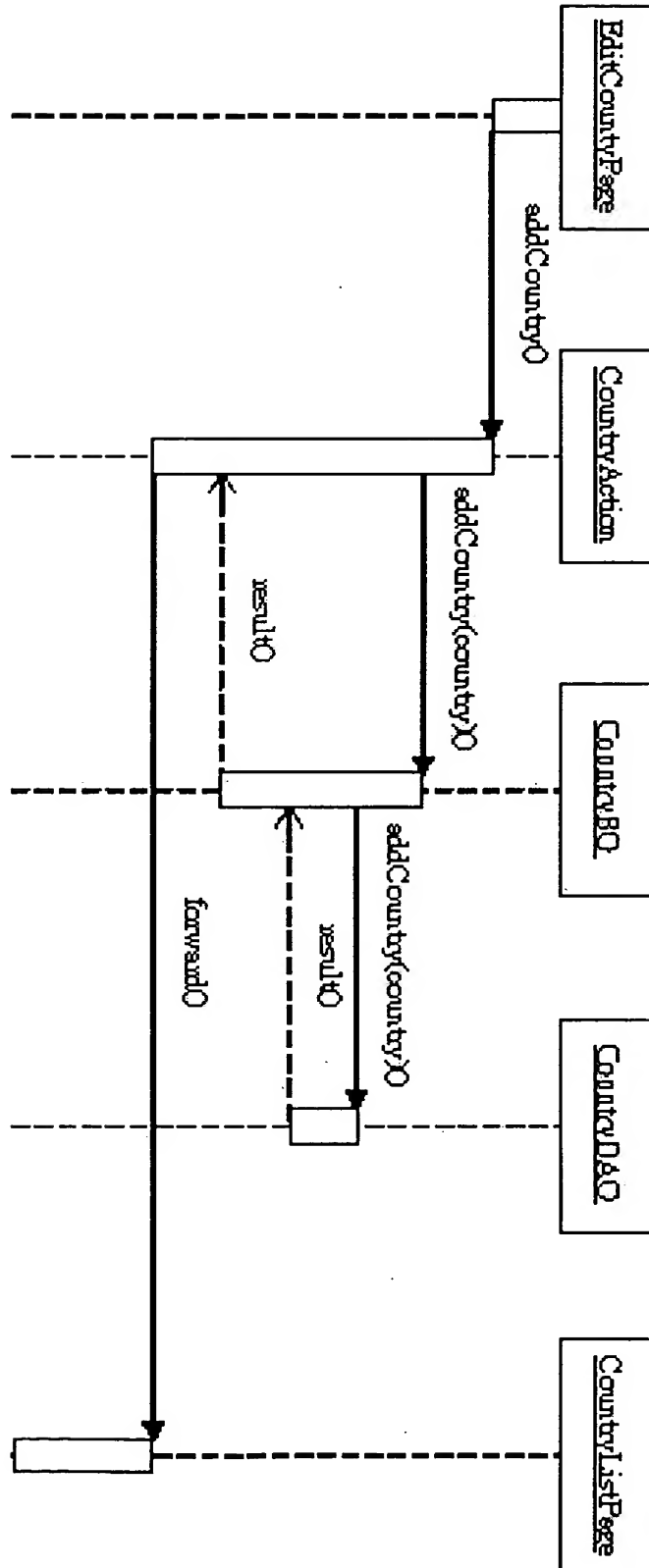


FIG. 47

COOLSA Administration Console		Country   Vendor
<b>Countries &gt; Edit Country Information</b>		
<b>Edit Country Information</b>		
Country ID	zh_HK	
Country Name	Hong Kong SAR ( -- Existing Countries -- )	
Encoding	Big5	
		Save Cancel

FIGURE 49

Edit Country Information	
Country ID	
Country Name	( -- Existing Countries -- )
Encoding	ISO8859_1
Save Cancel	

FIGURE 50

<u>Data Field</u>	<u>Description</u>	<u>Allowed Value</u>
Vendor ID	Distinct Vendor ID	System generated
Vendor Name	Display Name of the Vendor.	Any
Description	Vendor Description	Any
URL	Vendor URL	Valid URL
Form URL	Vendor Form URL	Valid URL
Country	Country where the vendor sell the products	A pull-down list of country is provided for selection
Currency	Currency which the vendor used for the price of the products	A pull-down list of currency is provided for selection

**FIGURE 51**

COOLSA Administration Console					Country   Vendor
<b>List Of Vendors</b>					
<div> List Of Vendors --All Countries-- Add </div>					
Vendor ID	Vendor Name	Description	URL	Country	Currency
59	Elgiganten	Norway shop	http://www.elgiganten.no/	Norway	
58	Quelle	Germany shop	http://www.quelle.de/	Germany	€
57	OTTO	Germany shop	http://www.neu.otto.de	Germany	EUR
56	Trend Machine	Germany shop	http://store.europe.yahoo.com/trendmachine/index.html	Germany	EUR
55	Media World	Italy shop	http://store.europe.yahoo.com/mediaworld/index.html	Italy	€
54	Piazzaerbe	Italy shop	http://store.europe.yahoo.com/piazzaerbe/	Italy	€
53	Alcosto	Italy shop	http://www.alcosto.it	Italy	€
51	Vistek	Canadian shop	http://www.vistek.ca	Canada	\$
50	HBC Online	Canadian shop	http://www.hbc.com/	Canada	\$
49	Red dots	One of the largest auction site in HK	http://www.red-dots.com/	Hong Kong SAR	HK\$
48	HK Yahoo Auction	One of the largest auction site in HK	http://hk.auctions.yahoo.com/	Hong Kong SAR	HK\$
47	Go to HK	One of the largest auction site in HK	http://www.go2hk.com	Hong	HK\$

**FIGURE 53**

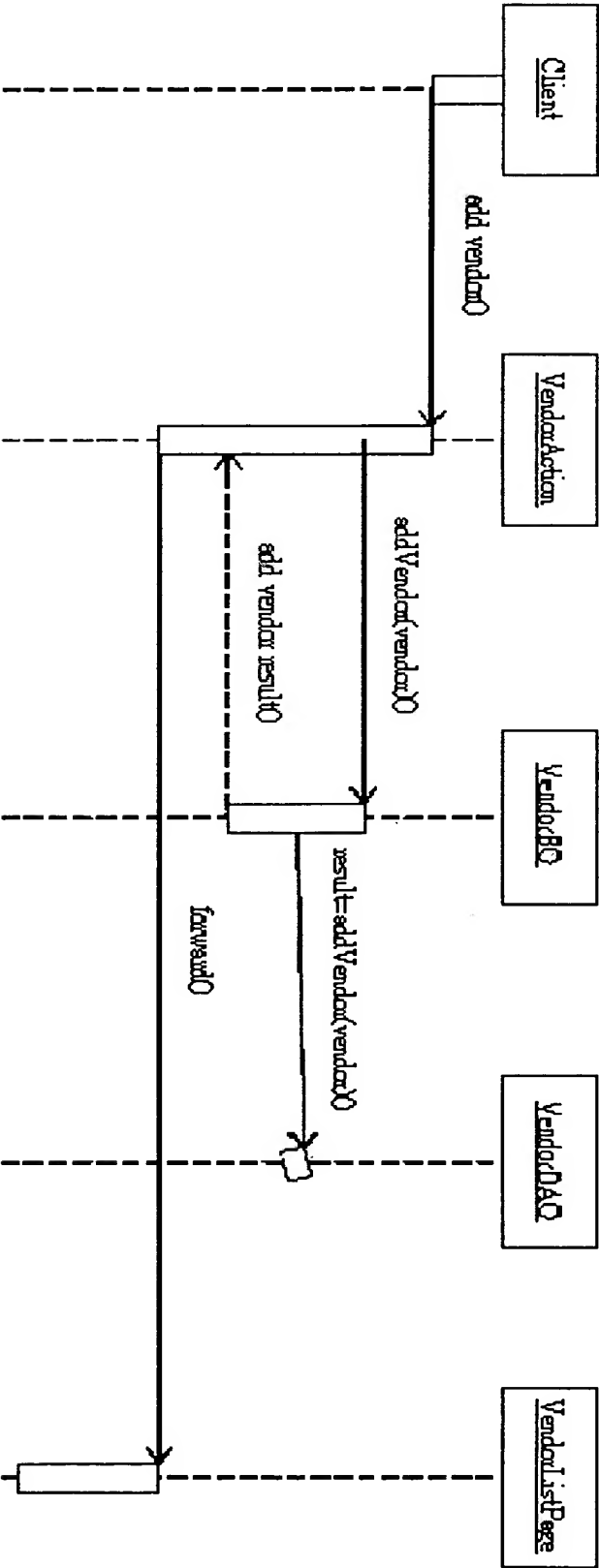


FIG. 52



COOL SA Administration Console					Country   Vendor
List Of Vendors: <span>United States</span> <span>Add</span>					
Vendor ID	Vendor Name	Description	URL	Country	Currency
35	Best Buy Digital		<a href="http://www.bestbuydigital.com">http://www.bestbuydigital.com</a>	<u>United States</u>	US\$
36	Brandsmall.com		<a href="http://www.brandsmall.com">http://www.brandsmall.com</a>	<u>United States</u>	US\$
18	buydig.com		<a href="http://www.buydig.com">http://www.buydig.com</a>	<u>United States</u>	US\$
19	clubmac.com		<a href="http://www.clubmac.com/clubmac/">http://www.clubmac.com/clubmac/</a>	<u>United States</u>	US\$
37	Compuvisor	Computer & Electronics Wholesale Superstore	<a href="http://www.compuvisor.com/">http://www.compuvisor.com/</a>	<u>United States</u>	US\$
20	direct.mwave.com		<a href="http://direct.mwave.com">http://direct.mwave.com</a>	<u>United States</u>	US\$
10009	eBay		<a href="http://www.ebay.com">http://www.ebay.com</a>	<u>United States</u>	
38	Mentline	Compactflash, Smartmedia card, DVD-R, CD-R, Ink jet cartridges	<a href="http://www.Mentline.com">www.Mentline.com</a>	<u>United States</u>	US\$
17	msn.com		<a href="http://eshop.msn.com">http://eshop.msn.com</a>	<u>United States</u>	\$
21	pcrush.com/		<a href="http://www.pcrush.com/">http://www.pcrush.com/</a>	<u>United States</u>	US\$
39	Shop4tech.net	cheap CD-R, DVD-R, Compact Flash, Computer Desk, ink cartridges	<a href="http://Shop4tech.net">Shop4tech.net</a>	<u>United States</u>	US\$
33	Tek Gallery		<a href="http://www.tekgallery.com/">http://www.tekgallery.com/</a>	<u>United States</u>	\$
40	Vio Software	Best Price on Microsoft, Adobe, Corel, Symantec Software.	<a href="http://www.viosoftware.com">http://www.viosoftware.com</a>	<u>United States</u>	US\$
34	Walmart		<a href="http://www.walmart.com/">http://www.walmart.com/</a>	<u>United States</u>	US\$

**FIGURE 54**

COOLSA Administration Console		Country   Vendor																								
<b>Vendor &gt; Vendor Details</b>																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Vendor Information</th> <th style="text-align: right;">Edit   Delete</th> </tr> </thead> <tbody> <tr> <td style="width: 20%;">Vendor ID</td> <td colspan="2">10009</td> </tr> <tr> <td>Vendor Name</td> <td colspan="2">eBay</td> </tr> <tr> <td>Description</td> <td colspan="2" style="height: 40px;"></td> </tr> <tr> <td>URL</td> <td colspan="2"><a href="http://www.ebay.com">http://www.ebay.com</a></td> </tr> <tr> <td>Form URL</td> <td colspan="2"><a href="http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&amp;ht=1&amp;SortProperty=MetaEndSort&amp;query=">http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&amp;ht=1&amp;SortProperty=MetaEndSort&amp;query=</a></td> </tr> <tr> <td>Country</td> <td colspan="2">United States</td> </tr> <tr> <td>Currency</td> <td colspan="2">\$</td> </tr> </tbody> </table>			Vendor Information		Edit   Delete	Vendor ID	10009		Vendor Name	eBay		Description			URL	<a href="http://www.ebay.com">http://www.ebay.com</a>		Form URL	<a href="http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&amp;ht=1&amp;SortProperty=MetaEndSort&amp;query=">http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&amp;ht=1&amp;SortProperty=MetaEndSort&amp;query=</a>		Country	United States		Currency	\$	
Vendor Information		Edit   Delete																								
Vendor ID	10009																									
Vendor Name	eBay																									
Description																										
URL	<a href="http://www.ebay.com">http://www.ebay.com</a>																									
Form URL	<a href="http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&amp;ht=1&amp;SortProperty=MetaEndSort&amp;query=">http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&amp;ht=1&amp;SortProperty=MetaEndSort&amp;query=</a>																									
Country	United States																									
Currency	\$																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5" style="text-align: left;">Traming Example</th> <th style="text-align: right;">Add</th> </tr> <tr> <th>Example ID</th> <th>Search Word</th> <th>Product Name</th> <th>Price</th> <th colspan="2">Action</th> </tr> </thead> <tbody> <tr> <td>10019</td> <td>Tablet PC</td> <td>Compaq Tablet PC TC1000</td> <td>\$1,699.00</td> <td colspan="2" style="text-align: center;">Delete</td> </tr> <tr> <td>10020</td> <td>Tablet PC</td> <td>ADR Flite Guide 3000 Fujitsu Tablet PC (NEW)</td> <td>\$987.60</td> <td colspan="2" style="text-align: center;">Delete</td> </tr> </tbody> </table>			Traming Example					Add	Example ID	Search Word	Product Name	Price	Action		10019	Tablet PC	Compaq Tablet PC TC1000	\$1,699.00	Delete		10020	Tablet PC	ADR Flite Guide 3000 Fujitsu Tablet PC (NEW)	\$987.60	Delete	
Traming Example					Add																					
Example ID	Search Word	Product Name	Price	Action																						
10019	Tablet PC	Compaq Tablet PC TC1000	\$1,699.00	Delete																						
10020	Tablet PC	ADR Flite Guide 3000 Fujitsu Tablet PC (NEW)	\$987.60	Delete																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Vendor Description</th> <th style="text-align: right;">Edit   Delete   Learn</th> </tr> </thead> <tbody> <tr> <td style="width: 20%;">Head</td> <td colspan="2"></td> </tr> <tr> <td>Tail</td> <td colspan="2"></td> </tr> <tr> <td>Item Left Delimiter</td> <td colspan="2">&lt;a href="http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&amp;category="</td> </tr> <tr> <td>Item Right Delimiter</td> <td colspan="2">&lt;/a&gt;&lt;/fo</td> </tr> <tr> <td>Price Left Delimiter</td> <td colspan="2">&lt;td nowrap align=right valign=top width=12%&gt;&lt;font siz</td> </tr> <tr> <td>Price Right Delimiter</td> <td colspan="2">&lt;BR&gt;</td> </tr> </tbody> </table>			Vendor Description		Edit   Delete   Learn	Head			Tail			Item Left Delimiter	<a href="http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category="		Item Right Delimiter	</a></fo		Price Left Delimiter	<td nowrap align=right valign=top width=12%><font siz		Price Right Delimiter	 				
Vendor Description		Edit   Delete   Learn																								
Head																										
Tail																										
Item Left Delimiter	<a href="http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category="																									
Item Right Delimiter	</a></fo																									
Price Left Delimiter	<td nowrap align=right valign=top width=12%><font siz																									
Price Right Delimiter	 																									

**FIGURE 55**

COOLSA Administration Console		Country   Vendor
<b>Vendors &gt; Edit Vendor Information</b>		
<b>Edit Vendor Information</b>		
Vendor ID	10009	
Vendor Name	eBay	
Description	<div></div>	
Vendor URL	http://www.ebay.com	
Form URL	http://search.ebay.com/search/search.dll?MicISAPICommand=GetResult&ht=1&SortPro	
Country	United States	
Currency	\$	
		<input type="button" value="Save"/> <input type="button" value="Cancel"/>

FIGURE 56

COOLSA Administration Console		Country   Vendor
<b>Vendors &gt; Edit Vendor Information</b>		
<b>Edit Vendor Information</b>		
Vendor ID		
Vendor Name		
Description	<div></div>	
Vendor URL		
Form URL		
Country	Africa	
Currency	\$	
		<input type="button" value="Save"/> <input type="button" value="Cancel"/>

**FIGURE 57**

http://192.168.1.46:8081/cooladmin/example/edit\_training\_example

### Edit Training Example

Edit Training Example	
Example ID	
Search Word	
Product Name	
Price	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

FIGURE 58

COOLSA Administration Console Country | Vendor

Vendor Detail > Edit Vendor Description

Edit Vendor Description	
Vendor Name	eBay
Item Left Delimiter	<a href="http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category="
Item Right Delimiter	</a></fo
Price Left Delimiter	<td nowrap align=right valign=top width=124><font siz
Price Right Delimiter	 
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

FIGURE 59



FIGURE 60A

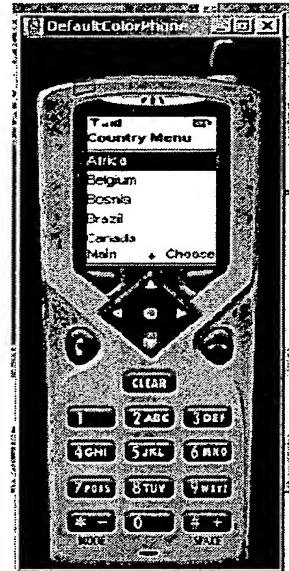


FIGURE 60B



FIGURE 61A



FIGURE 61B



FIGURE 61C

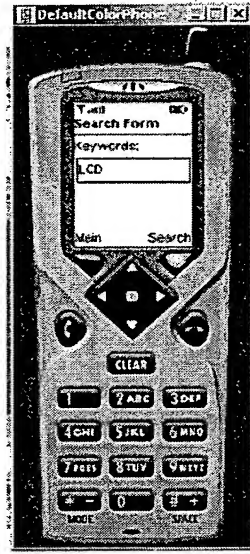


FIGURE 61D



FIGURE 61E

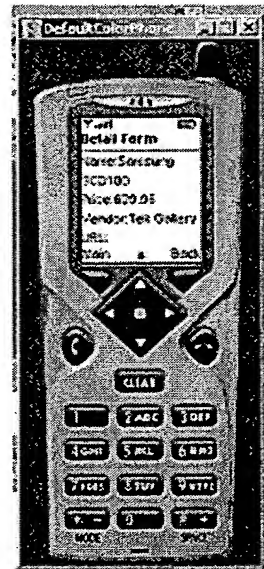


FIGURE 61F

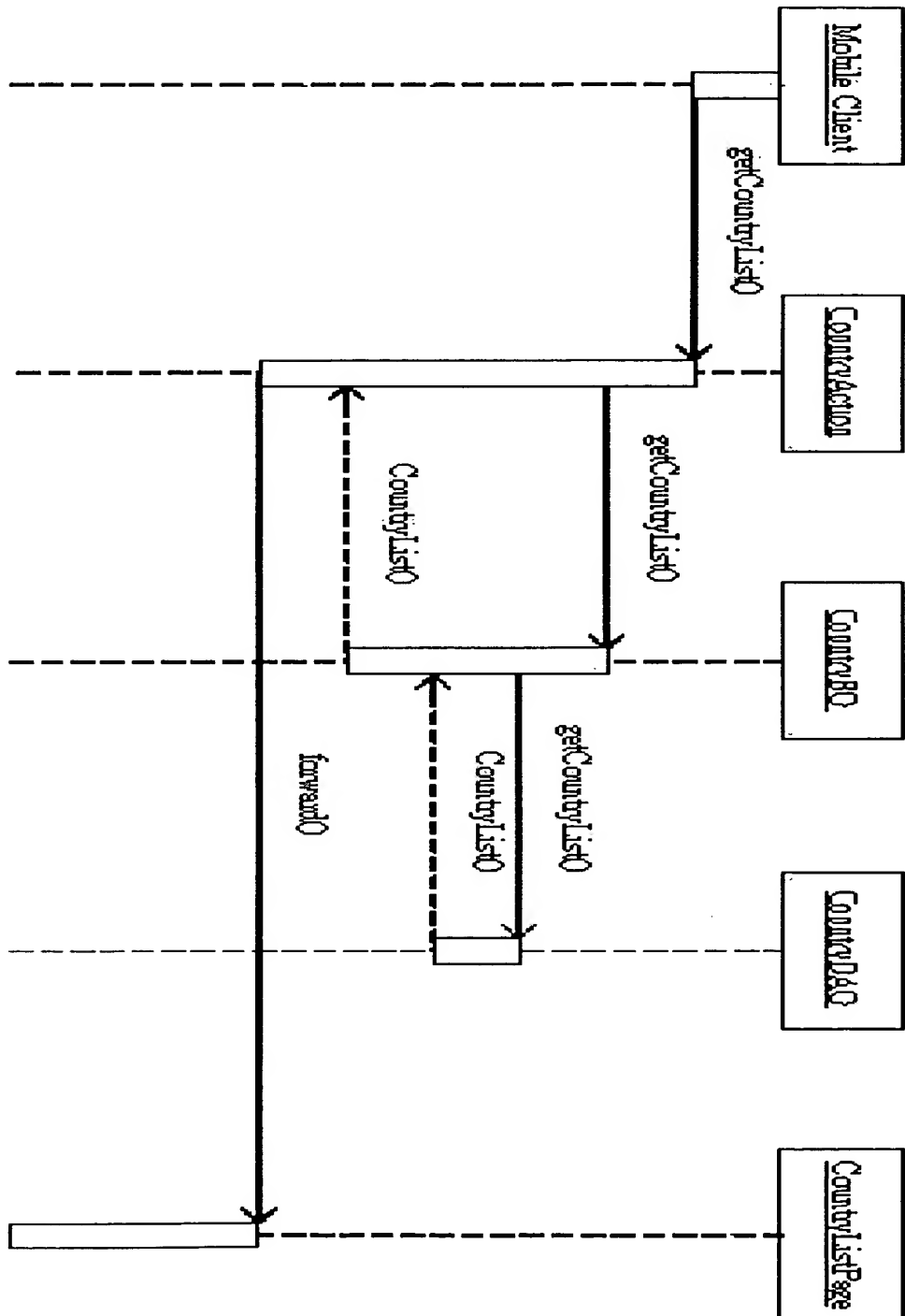


FIG. 62



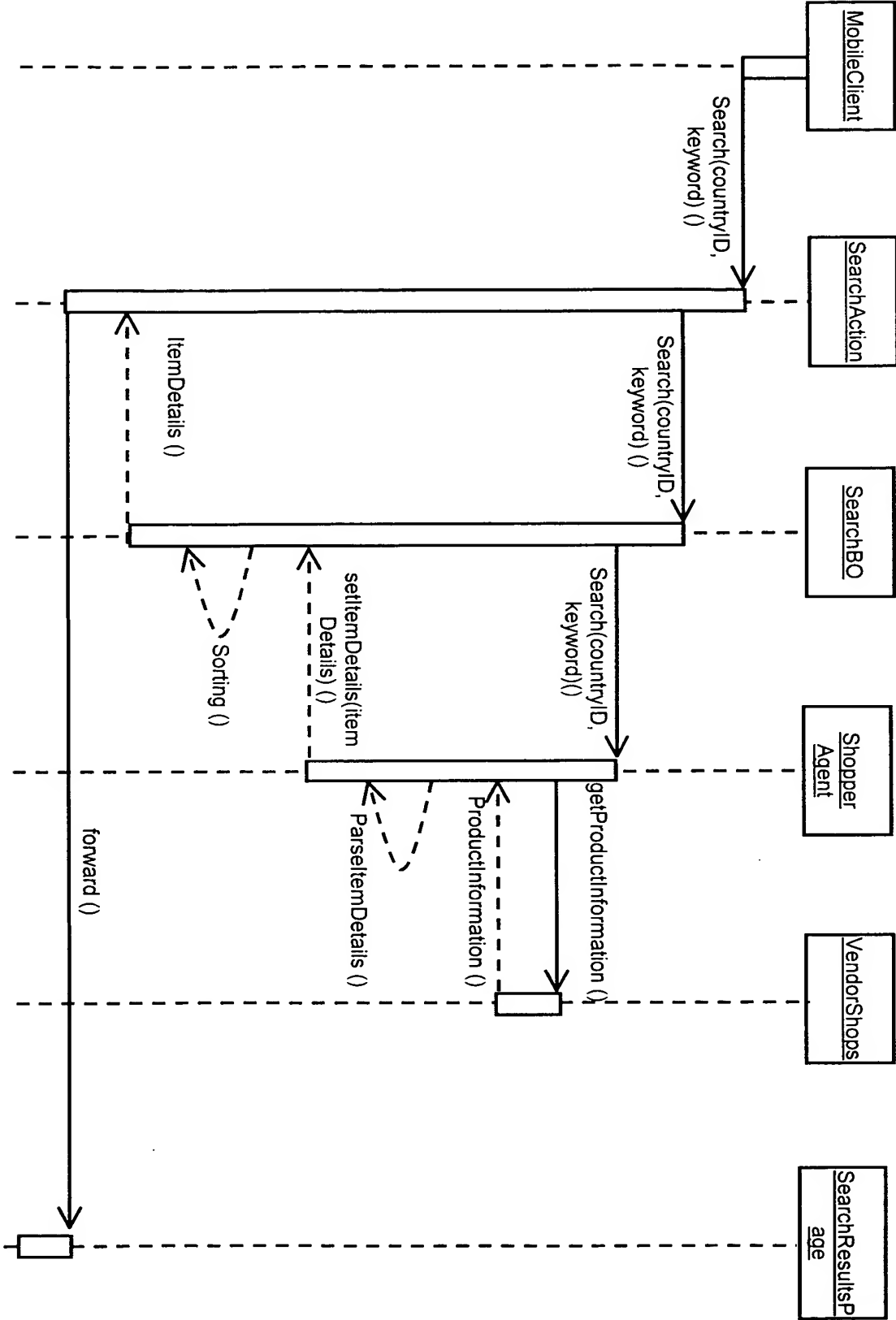


FIG. 63

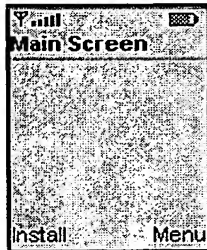


FIGURE 64A



FIGURE 64B



FIGURE 64C



FIGURE 64D

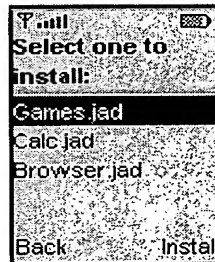


FIGURE 64E

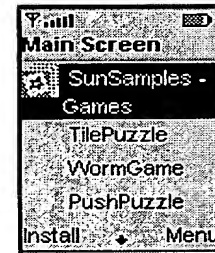
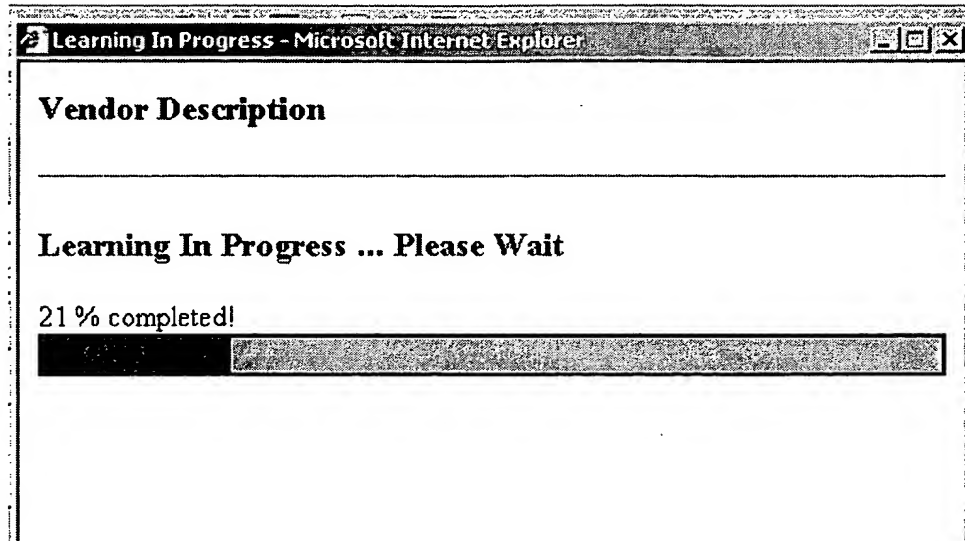


FIGURE 64F



FIGURE 64G



**FIGURE 65**